ARCADIS

*Infrastructure, environment, buildings*

ARCADIS U.S., Inc.
1900 Powell Street 11th Floor
Emeryville, CA 94608
Tel 510.652.4500
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**www.arcadis-us.com**

Ms. Carmen Santos
U.S. Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

Environmental

Subject:
Additional Excavation Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California

Date:
September 15, 2010

Contact:
Ron Goloubow

Phone:
510.596.9550

E-mail:
ron.goloubow@arcadis-us.com

Our ref:
EM009155.0009.00001

Dear Ms. Santos:

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this letter to provide the scope of work to excavate and encapsulate soil containing polychlorinated biphenyls (PCBs) at 1009 66th Avenue in Oakland, California ("the Site"; Figures 1 and 2). The PCB-affected soil was identified as part of the post-demolition soil samples that were collected at the Site. As we discussed during our telephone conference call on September 7, 2010, ACRADIS is proposing to remove surficial soil at three locations that contained PCB above the site clean-up goal. This excavated soil will be encapsulated on-site at excavation area "PCB EXC-3" where soil containing concentrations of PCB above the site clean-up goal cannot be removed without compromising the integrity of the foundation for a neighboring building. The three proposed areas of excavation coincide with areas that will be excavated to accommodate the redevelopment of the Site (see Figure 2).

The soil will be excavated in accordance with the Toxic Substances Control Act (TSCA) Self-Implementing Cleanup Plan ("the SICP") that was previously prepared for the Site. The scope of work for the SICP was originally presented in a letter from LFR Inc. (now fully integrated in to ARCADSI) to the U.S. Environmental Protection Agency (U.S. EPA), dated October 23, 2009. The SICP received conditional approval from the U.S. EPA in its letter to Aspire dated November 13, 2009 ("Approval Letter"; U.S.EPA 2009). The conditions provided in the Approval Letter were addressed in a letter transmitted by LFR to the U.S. EPA, dated November 18, 2009. The scope of the SICP was further refined in an e-mail message from representatives of the U.S. EPA to LFR, dated November 25, 2009.

**Proposed Excavation Activities**

As discussed between representatives of ARCADIS and U.S.EPA on September 7, 2010, soil at post demolition soil sample locations PD3, PD4, and PD5 will be excavated and encapsulated within excavation PCB EXC-3. The proposed excavation areas around post demolition soil samples PD3, PD4, and PD5 will be approximately 10 feet by 10 feet laterally and extend 2 feet below the current ground surface (bgs). The excavation of these three areas will result in approximately 22.2 cubic yards of soil that will be encapsulated within excavation PCB EXC-3.

To confirm that the affected soil has been removed from each area, confirmation soil samples will be collected from each side wall and the base of each area of excavation (five confirmation soil samples per area of excavation). The confirmation soil samples will be collected and analyzed for PCBs in accordance with the methods provided in the SICP.

The analytical results of these confirmation soil samples will be transmitted to the U.S. EPA in a summary letter as they become available. Should the analytical results of the confirmation soil samples indicate that PCBs are present in soil at concentrations exceeding the site specific clean-up criteria, then additional soil will be removed, and additional confirmation soil samples will be collected and analyzed.

The area that is to receive the excavated soil (along with the entire parcel) will be covered with a TSCA Cap. The purpose of the TSCA Cap is to remove the potential exposure to the PCB-affected soil. In addition, the deed for the Site will include a notice that PCB-affected soil is present at the Site.

**Closing**

We are planning to commence with excavation project on or about September 24, 2010. The excavation should be completed in one day and the analytical results of the confirmation soil samples will be available approximately 3 days after collection. ARCADIS will contact representatives of U.S. EPA during the week of September 20, 2010 to determine if the proposed scope of the excavations activities provided in this letter is acceptable. We at ARCADIS appreciate working with you and your team and look forward to bringing this project to closure with the U.S. EPA and Alameda County Department of Environmental Health in the near future.

Sincerely,

ARCADIS U.S., Inc.

Ron Goloubow, P.G.
Senior Associate Geologist

Copies:
Mike Barr – College for Certain, LLC
Charles Robitaille – Pacific Charter Schools
Paresh Khatri – Alameda County Department of Environmental Health

Enclosures:

Figure 1 – Site Vicinity Map
Figure 2 – Site Plan

MAP SOURCE: Copyright 1995, Thomas Bros. Map ALAMEDA COUNTY 2002 Edition

0 2,000 4,000 FEET

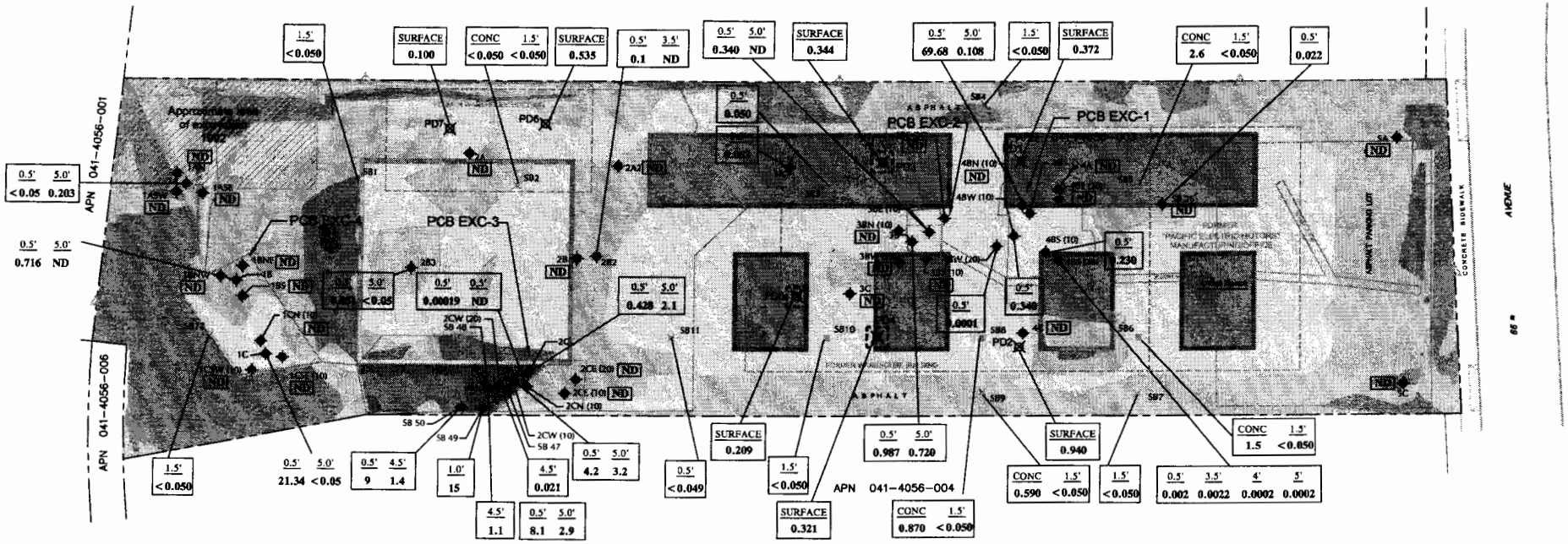
1009 66TH AVENUE, OAKLAND, CALIFORNIA

**SITE VICINITY MAP**

ARCADIS

FIGURE 1

DESIGN\003\09155\Figure 1 Site Vicinity - 003-09155.cdr




**EXPLANATION:**

- PD1 — Post Demolition Surface Soil Sample (7 Locations - 6/2010)
- 1B — Soil Sample Location
- Soil and Concrete Sample Location Based on a 75'x75' Grid Spacing (5 Locations - 10/2009)
- Soil Sample Location Based on a 75'x75' Grid Spacing (9 Locations - 10/2009)
- Air Monitoring Station
- Property Line
- Excavation of PCB-Affected Soil
- Proposed Area of Excavation
- 4.5' / 1.1 — Depth in Feet / Concentration in mg/kg
- ND = Not Detected at or above Laboratory Reporting Limits
- CONC = Concrete Sample
- PCB = Polyclorinated Biphenyls

CUT AND FILL DEPTH TABLE

| | MINIMUM DEPTH | MAXIMUM DEPTH | AREA | COLOR | |
|---|---|---|---|---|---|
| CUT DEPTH | -4.004 | -3.000 | 2266 | | CUT DEPTH |
| | -3.000 | -2.000 | 4734 | | |
| | -2.000 | -1.000 | 21575 | | |
| | -1.000 | 0.000 | 23898 | | |
| FILL DEPTH | 0.000 | 1.000 | 35671 | | FILL DEPTH |
| | 1.000 | 2.000 | 116.32 | | |
| | 2.000 | 3.000 | 4368 | | |
| | 3.000 | 4.213 | 1192 | | |

THE INFORMATION SHOWN IN THIS TABLE IS APPROXIMATE

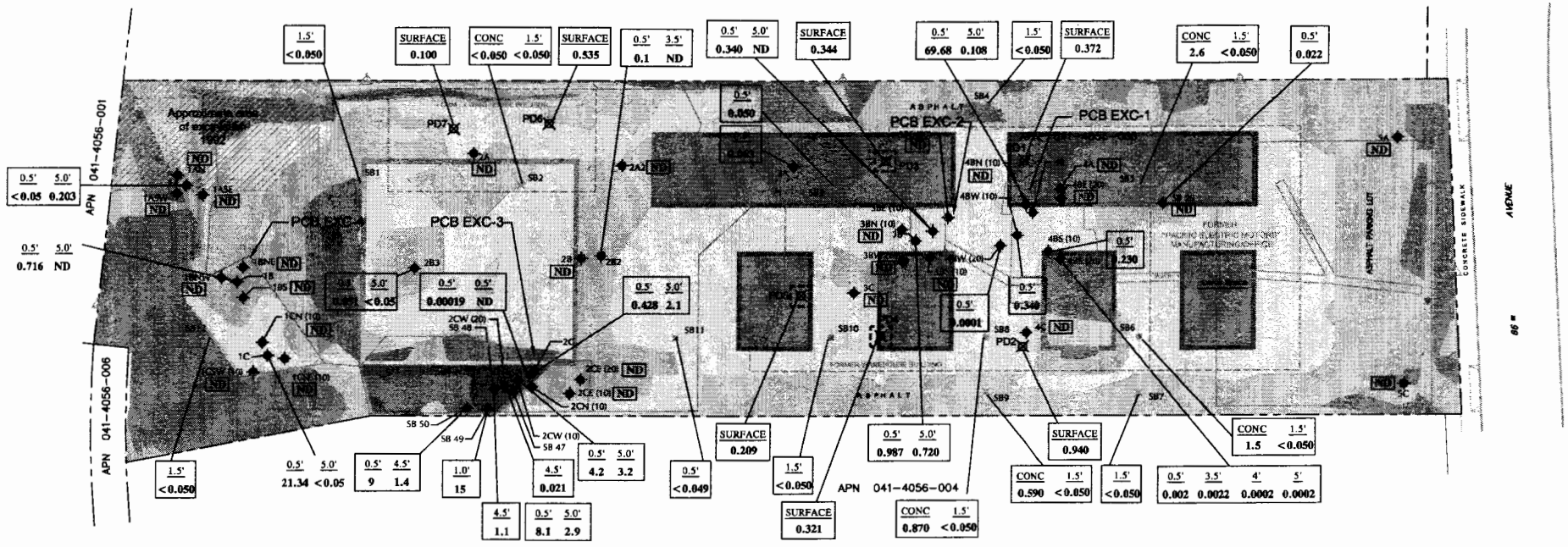
0 50 Feet

PROPOSED CHARTER SCHOOL SITE
1009 66TH AVENUE, OAKLAND, CALIFORNIA

**PCBs DETECTED IN SOIL**
**0 TO 5 FEET BELOW GROUND SURFACE**

ARCADIS

FIGURE 2

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| 3.000 | 4.213 | 1192 | |

CUT DEPTH

FILL DEPTH

THE INFORMATION SHOWN IN THIS TABLE IS APPROXIMATE

0 50 Feet

PROPOSED CHARTER SCHOOL SITE
1009 66TH AVENUE, OAKLAND, CALIFORNIA

**PCBs DETECTED IN SOIL**
**0 TO 5 FEET BELOW GROUND SURFACE**

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FIGURE
2

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*Infrastructure, environment, buildings*

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Ms. Carmen Santos
U.S. Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

*sent via email only*

Environmental

Subject:
Soil Sampling Plan for Soil to be Imported for Use in the Proposed Landscaped Areas at the Former Pacific Electric Motors Facility, 1009 66th Avenue, in Oakland, California

Date:
June 24, 2011

Contact:
Ron Goloubow

Phone:
510.596.9550

E-mail:
ron.goloubow@arcadis-us.com

Our ref:
EM009155.0010.00001

Dear Ms. Santos:

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this letter to provide the sampling and analysis plan for soil to be imported and used in the proposed landscaped areas at 1009 66th Avenue in Oakland, California ("the Site"). The sampling plan was requested in the letter from the United States Environmental Protection Agency (U.S. EPA). Based on the development plan for the Site approximately 350 cubic yards of soil are to be imported for use in the proposed landscaped areas at the Site. It is possible that the supplier of the imported soil already has documentation certifying that the soil does not contain poly chlorinated byphenols (PCBs), lead or arsenic above the site specific cleanup standards. If this data exists, ARCADIS will submit this documentation to the U.S. EPA to certify that the imported soil meets the criteria set forth in this sampling plan. If the supplier does not have analytical data for the soil to be imported then the following sampling plan will be implemented.

**Sampling Plan for Imported Soil**

Soil that is imported to the Site for use in the landscaped areas will be sampled and analyzed prior to being used at the Site. Two discrete soil samples will be collected and analyzed as described below. Two discrete soil samples will be collected for every 350 cubic yards of soil proposed to be imported to the Site for use as landscaped areas. In addition one duplicate soil sample will be collected and analyzed. The samples will be submitted to a state-certified laboratory for the following analyses:

- Total petroleum hydrocarbons as gasoline by EPA test method 8015, modified
- benzene, using EPA test method 8260
- arsenic and lead by EPA test method 6010B
- PCBs by EPA test method 8082

In order for the soil to be used in the proposed landscaped areas at the Site, the analytical results should be less than the following site specific clean up goals (see discussion presented in Appendix B of the CAP):

- PCBs 0.135 milligrams per kilogram (mg/kg)
- arsenic 7 mg/kg
- lead 80 mg/kg
- TPHg 110 mg/kg
- benzene 0.27 mg/kg

Soil samples will be collected in laboratory supplied jars sample will be labeled and sealed immediately after collection. Sample containers will be 4 or 8 ounce laboratory supplied glass jars, and no preservative will be used. The soil samples to be submitted to the laboratory will be labeled with the sample identification, the time and date of collection, the analysis requested, and the initials of the sampler. The samples will be stored in an ice-chilled cooler and submitted to a State of California Certified laboratory under strict chain-of-custody protocols. ARCADIS shall coordinate with the laboratory for the delivery of collected soil samples under chain-of-custody protocols for chemical analysis. Since this is such a small data set (two soil samples) duplicate samples are not proposed to be collected or analyzed for this small volume of soil to be imported.

**Closing**

Blackwell Construction (on behalf of CFC) is in the process of procuring a source for the imported soil. It is possible that the supplier of the imported soil already has analytical data certifying that the soil does not contain PCBs, lead, or arsenic above the site specific clean up standards. ARCADIS will contact representatives of U.S. EPA (and the Alameda County Department of Environmental Health) as soon as the analytical data is received from the laboratory (or the supplier) to determine if the soil is acceptable for use in the landscaped areas.

We at ARCADIS appreciate working with you and your team and look forward to bringing this project to closure with the U.S. EPA in the near future.

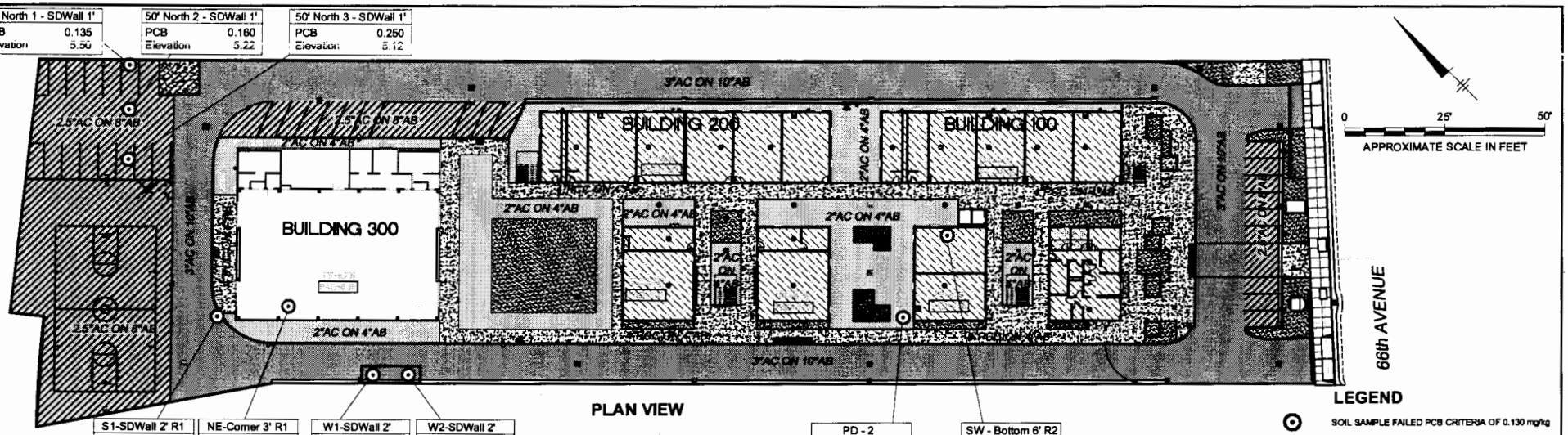
Sincerely,

ARCADIS U.S., Inc.

Ron Goloubow, P.G.
Principal Geologist

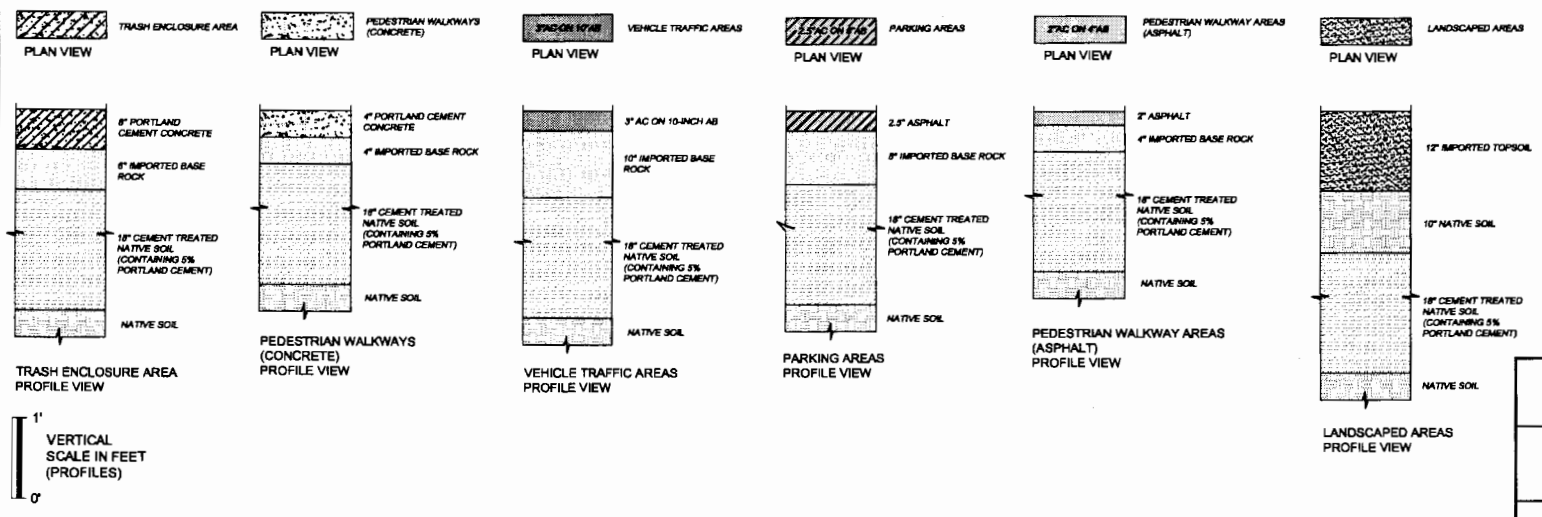
Copies:
Mike Rueda – Pacific Charter Schools
Brad Kettle – Blackwell Construction

Imagine the result




## PLAN VIEW

## PAVEMENT DETAILS




## LEGEND

- SOIL SAMPLE FAILED PCB CRITERIA OF 0.130 mg/kg
- LOCATION OF PCB AFFECTED SOIL ENCAPSULATED FROM APPROXIMATELY 3 TO 8 FEET BELOW FINISHED GRADE
- NEW CONCRETE SLAB (6" REINFORCED PCC ON 6" CLASS 2 AB ON 8" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
- NEW CONCRETE SLAB (4" REINFORCED PCC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
- 3"AC ON 10"AB — NEW AC PAVEMENT-TRAFFIC SECTION (6"AC ON 6" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
- 2.5"AC ON 8"AB — NEW AC PAVEMENT-PARKING SECTION (6"AC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
- 2"AC ON 4"AB — NEW AC PAVEMENT-PEDESTRIAN SECTION (2"AC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
- LANDSCAPING: 12" TOP SOIL OVER 10" CAP OF IMPORTED SOIL. COMPACT CAP TO 90%. PLACE ORANGE WARNING NETTING UNDERNEATH CAP.
- RAT SLAB UNDERNEATH ALL MODULAR BUILDINGS: 2"AC ON 4" CLASS 2 AB

mg/kg = MILLIGRAMS PER KILOGRAM

SOURCES: UNDERWOOD & ROSENBLUM, INC.
K2A ARCHITECTURE + INTERIORS
GRADING AND PAVING PLANS

PROPOSED CHARTER SCHOOL SITE
1009 66TH AVENUE, OAKLAND, CALIFORNIA

# PROPOSED PAVEMENT PLAN

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FIGURE 2

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*Infrastructure, environment, buildings*

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**www.arcadis-us.com**

Ms. Carmen Santos
U.S. Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

*sent via email only*

Environmental

Subject:
Proposed Toxic Substance Control Act (TSCA) Cap for Pavement Areas – Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California

Date:
April 25, 2011

Contact:
Ron Goloubow

Phone:
510.596.9550

E-mail:
ron.goloubow@arcadis-us.com

Our ref:
EM009155.0010.00001

Dear Ms. Santos:

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this letter to provide the revised details regarding the design of the Toxic Substance Control Act (TSCA) Cap for pavement and landscaped areas to be installed at 1009 66th Avenue in Oakland, California ("the Site"; Figures 1, and 2). The purpose of the cap is to prevent human and ecological exposure to any soil that may contain polychlorinated biphenyls (PCBs) at concentrations greater than the site specific clean-up goal of 0.135 milligrams per kilogram. As we have discussed, PCB-affected soil that might remain at the Site would likely be located within the interval of the cement treated soil. Depended upon the pavement and landscaping design provided below, that soil would be covered by a minimum of 6 to 13 inches of cap material (see pavement details on Figure 2).

**Proposed Pavement Design**

The details regarding the proposed pavement design for the Site is illustrated on Figure 2. As illustrated there are six different designs for pavement thicknesses depended upon the specific traffic - Site use in the area.

The proposed TSCA Cap designs will be comprised as follows (from the bottom up to the ground surface):

**Trash Enclosure Area**

- Native soil
- 18 - Inches of cement treated native soil
- 6 - Inches of imported aggregate base rock and
- 6- Inches of Portland cement concrete

**Pedestrian Walkway Areas - Concrete**

- Native soil
- 18 - Inches of cement treated native soil
- 4- Inches of imported aggregate base rock and
- 4- Inches of Portland cement concrete

**Vehicle Traffic Areas**

- Native soil
- 18 - Inches of cement treated native soil
- 10- Inches of imported aggregate base rock and
- 3- Inches of asphalt concrete

**Parking Areas**

- Native soil
- 18 - Inches of cement treated native soil
- 8- Inches of imported aggregate base rock and
- 2.5- Inches of asphalt concrete

**Pedestrian Walkway Areas - Asphalt**

- Native soil
- 18 - Inches of cement treated native soil
- 4- Inches of imported aggregate base rock and
- 2- Inches of asphalt concrete

**Landscaped Areas**

- Native soil
- 18 - Inches of cement treated native soil
- 10- Inches of native soil
- 12- Inches of imported top soil

## Closing

Blackwell Construction (on behalf of CFC) is in the process of installing the modular (re-locatable) buildings. The next phase of the construction project at the Site will be to install the "hard-scape" that will include the asphalt and concrete pavement area described above.

ARCADIS will contact representatives of U.S. EPA on Monday, May 2, 2011 to determine if the design provided in this letter is acceptable. We at ARCADIS appreciate working with you and your team and look forward to bringing this project to closure with the U.S. EPA in the near future.

Sincerely,

ARCADIS U.S., Inc.

Ron Goloubow, P.G.
Principal Geologist

Copies:
Mike Rueda – Pacific Charter Schools
Brad Kettle – Blackwell Construction

Enclosures:

Figure 1 – Site Vicinity Map
Figure 2 – Proposed Pavement Plan

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION IX**
**75 Hawthorne Street**
**San Francisco, CA 94105**

Via U.S. Postal Service and Electronic Mail
Certified Mail Receipt No. 7000 0520 0021 6107 8407

November 13, 2009

Aspire Public Schools, a California
non-profit public benefit corporation
1001 22nd Avenue, Suite 100
Oakland, CA 94606
Attention: Mike Barr, CFO

**Re: Polychlorinated Biphenys – U.S. EPA Conditional Approval Under 40 C.F.R. § 761.61(a), Toxic Substances Control Act - - *"Toxic Substances Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California"***

Dear Mr. Barr:

We have reviewed the *"Toxic Substances Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California,"* letter dated October 23, 2009 and prepared by LFR Inc. an Arcadis Company (LFR) for Aspire Public Schools ("Aspire"). The U.S. Environmental Protection Agency Region 9 (USEPA) is approving Aspire's October 23, 2009 Notification with the conditions established in the attached *"USEPA Conditional Approval for Aspire Public Schools, 1009 66th Avenue, Oakland, CA PCB Self-Implementing On-Site Cleanup and Disposal of PCB Remediation Waste."*

The LFR letter is intended to serve as the notification and certification ("Notification") required in 40 C.F.R. § 761.61(a) of the Toxic Substances Control Act (TSCA) for a self-implementing on-site cleanup and disposal of polychlorinated biphenyls (PCBs) at the Aspire property at 1009 66th Avenue in Oakland. PCBs are present at the Aspire property ("Aspire site") in soils and a potential exists for PCB-containing manufactured products to be present in structures to be demolished at the site. Aspire plans to redevelop the site as a public school for sixth to 12th grade students.

In addition, the Notification requests a "variance" to the schedule provided in 40 C.F.R. § 761.61(a)(3)(ii). USEPA is granting the requested waiver for the schedule in 40 C.F.R. § 761.61(a)(3)(i) in accordance with 40 C.F.R. § 761.61(a)(3)(iii) and in consideration of financial matters that Aspire claims if not resolved could prevent or further delay construction of the school. However, the owner of the property still needs to obtain a similar written waiver from the California Department of Toxic Substances Control (DTSC) and Alameda County Environmental Health (ACEH) in accordance with 40 C.F.R. § 761.61(a)(3)(iii) and maintain all waivers and other records in accordance with 40 C.F.R. § 761.61(a)(9).

While we recognize that, at an October 27, 2009 meeting with Charles Robitaille (Aspire Charter Schools) and LFR representatives (Aspire consultants), Aspire had sought a cleanup standard of 0.39 mg / kg (ppm), we have decided to approve a cleanup standard of 0.13 ppm, as specified in Condition 7 of

school site that is the subject of this conditional approval. Refer to the ACEH March 12, 2009 letter to Aspire, which is attached to the cover letter. It is also our understanding that DTSC considers cumulative health risks when addressing school sites with multiple contaminants. The Aspire site has multiple contaminants in soils and ground water.

**8. Cap (protective barrier).** USEPA requires that a cap be installed at the Aspire proposed school site in accordance with the requirements in 40 C.F.R. § 761.61(a)(7). Please note that Aspire has acquired a property to construct the proposed school that has a long history (1946 – 2008) of industrial activity during which PCB releases occurred at the site. A possibility exists for PCB congeners (i.e., weathered PCB Aroclors that are dioxin-like PCB compounds) to be present at the site due to historic PCB releases. A cap will prevent direct exposure to soils containing these compounds.

In addition, USEPA was not involved with any of the investigations so far conducted at the site prior to Aspire's October 23, 2009 Notification to USEPA. PCB contaminated soils may remain at the site due to potential uncertainties in the characterization and remediation of PCB-contaminated soils at the site; and shallow ground water conditions potentially impacting site characterization and remediation. A potential may also exist for future changes at the school grounds where penetration of barriers (e.g., concrete, asphalt surfaces) preventing exposure to onsite soils may be necessary (e.g., repair of utilities).

**9. Risk management plan and deed notice.** The regulations in 40 C.F.R. § 761.61(a)(4)(i)(A) do not require further restrictions such as a deed notice when the ≤1 ppm PCB cleanup level for high occupancy is verified as achieved via confirmatory sampling. However, USEPA believes that in addition to Conditions 7 and 8 a risk management plan would be an institutional control protective of children at the future Aspire school.

USEPA is approving the 0.13 ppm PCB soil cleanup level for the Aspire site under the condition that (1) site soils are overlain with asphalt, concrete, and / or other cap (protective barrier) that impedes direct exposure to on-site soils and (2) a deed notice that includes a risk management plan be recorded in accordance with California state law.

Within 30 days after completion of the PCB cleanup, Aspire shall submit for USEPA approval a risk management plan that at a minimum includes:

- A survey of the Aspire property and map clearly depicting all areas where PCBs were encountered and remediated,
- A description of specific activities to be prohibited at the school because of their potential to penetrate protective barriers (e.g., asphalt, concrete) that would expose onsite soils,
- A description of how the teachers, administrators, and staff at the school will be notified of the specific activities which are prohibited at the school because of their potential to penetrate protective barriers (e.g., asphalt, concrete) that would expose onsite soils and
- The conditions under which penetration or alteration of protective barriers is permitted and the contingencies that must be implemented to prevent exposure to onsite soils.

Within 60 days after completing the PCB cleanup at the Aspire site, pursuant to 40 C.F.R. § 761.61(a)(8), Aspire shall record in accordance with California state law, a notation on the deed to the property, or on some other instrument which is normally examined during a title search, that will in perpetuity notify any potential purchaser of the property ( 1 ) That the land has been used for PCB remediation waste disposal and specific activities are prohibited as described in the risk management plan described above; ( 2 ) Of the existence of the cap (protective barriers) and the requirement to maintain the protective barriers in perpetuity; and ( 3 ) The applicable cleanup levels left at the site, under the cap; and ( 4 ) the procedure by which USEPA will be notified of penetrations or alterations of the required cap. In addition, Aspire must submit to USEPA a certification signed by the owner certifying the required deed was recorded.

**10. Recordkeeping and PCB cleanup report.** The owner of the property must keep records of the PCB cleanup including any cleanup conducted prior to the date of this approval that involved the removal of PCBs from the site. All reports currently available that document PCB cleanup at the site are incorporated herein as part of the Aspire October 23, 2009 Notification. In accordance with 40 C.F.R. § 761.61(a)(9), the owner of the property must keep cleanup records as required in 40 C.F.R. § 761.125(c)(5).

Submit for approval a PCB cleanup report within 30 days after completing the PCB cleanup (including removal and disposal of PCB remediation and bulk product waste). The report must contain all supporting sample analysis results documenting achievement of the PCB cleanup level, data summaries, waste disposal, and all the information required in 40 C.F.R. § 761.125(c)(5).

**11. Restoration of the site.** After achieving the PCB cleanup level, site restoration shall be done consistent with local and California State regulatory requirements as well as in accordance with the requirements in ACEH's March 12, 2009 letter approving the LFR CAP. The PCB soil cleanup level for the Aspire site is 0.13 ppm. The PCB concentration in the backfill material should not exceed this PCB soil cleanup level.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION IX**
**75 Hawthorne Street**
**San Francisco, CA 94105**

Via U.S. Postal Service and Electronic Mail
Certified Mail Receipt No. 7000 0520 0021 6107 8407

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The LFR letter is intended to serve as the notification and certification ("Notification") required in 40 C.F.R. § 761.61(a) of the Toxic Substances Control Act (TSCA) for a self-implementing on-site cleanup and disposal of polychlorinated biphenyls (PCBs) at the Aspire property at 1009 66th Avenue in Oakland. PCBs are present at the Aspire property ("Aspire site") in soils and a potential exists for PCB-containing manufactured products to be present in structures to be demolished at the site. Aspire plans to redevelop the site as a public school for sixth to 12th grade students.

In addition, the Notification requests a "variance" to the schedule provided in 40 C.F.R. § 761.61(a)(3)(ii). USEPA is granting the requested waiver for the schedule in 40 C.F.R. § 761.61(a)(3)(i) in accordance with 40 C.F.R. § 761.61(a)(3)(iii) and in consideration of financial matters that Aspire claims if not resolved could prevent or further delay construction of the school. However, the owner of the property still needs to obtain a similar written waiver from the California Department of Toxic Substances Control (DTSC) and Alameda County Environmental Health (ACEH) in accordance with 40 C.F.R. § 761.61(a)(3)(iii) and maintain all waivers and other records in accordance with 40 C.F.R. § 761.61(a)(9).

While we recognize that, at an October 27, 2009 meeting with Charles Robitaille (Aspire Charter Schools) and LFR representatives (Aspire consultants), Aspire had sought a cleanup standard of 0.39 mg / kg (ppm), we have decided to approve a cleanup standard of 0.13 ppm, as specified in Condition 7 of

the attached approval. This cleanup level is consistent with the levels approved by both ACEH and DTSC as being protective of human health, in that it meets the cleanup goal for PCBs in soils corresponding to a 1 x $10^{-6}$ risk level. This level is also consistent with the TSCA regulations in 40 C.F.R. § 761.61(a)(4)(v) and 761.61(a)(4)(vi).

We look forward to be of assistance to Aspire during implementation of the subject Notification as modified by the attached USEPA approval. Please call Carmen Santos at (415) 972-3360 if you have any questions concerning this approval.

Sincerely,

for Arlene Kabei
Associate Director
Waste Management Division

Enclosure

Cc: Mark Malinowski, DTSC (Chief Schools Unit, Sacramento Office)
Tom Booze, DTSC
Paresh Khatri, Alameda County Environmental Health
Charles Robitaille, Aspire Charter Schools
Alan Gibbs, LFR Inc. an Arcadis Company
Ron Goloubow, LFR Inc. an Arcadis Company
Steve Armann, USEPA R9
Patrick Wilson, USEPA R9
Katherine Baylor, USEPA R9
Carmen Santos, USEPA R9

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

November 13, 2009

# USEPA Conditional Approval for Aspire Public Schools, 1009 66th Avenue, Oakland, CA PCB Self-Implementing On-Site Cleanup and Disposal of PCB Remediation Waste

*"Toxic Substances Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California,"* letter dated October 23, 2009 and prepared by LFR an Arcadis Company (LFR) for Aspire Public Schools ("Aspire").

The U.S. Environmental Protection Agency Region 9 (USEPA) is approving with conditions the Aspire October 23, 2009 Notification and Certification ("Notification"). The Notification is required by 40 C.F.R. § 761.61(a) of the Toxic Substances Control Act (TSCA) for a self-implementing on-site cleanup and disposal of polychlorinated biphenyls (PCBs), 40 C.F.R. § 761.61(a), at the Aspire property at 1009 66th Avenue in Oakland. Aspire must implement the terms of the Notification, as modified by the conditions of approval.

This conditional approval does not relieve the owner of the property from complying with all other applicable federal, state, and local regulations and permits. Departure from the approval conditions without prior written permission from USEPA may result in the commencement of proceedings to revoke this approval, and/or an enforcement action. Nothing in this approval bars USEPA from imposing penalties for violations of this approval or for violations caused by other activities not covered under the terms of this approval that trigger TSCA PCB requirements.

## USEPA Conditions of Approval

**1. Written, signed certification by owner of Aspire property and party conducting cleanup.** The Notification includes an incomplete, unsigned certification. Within two (2) days after the date of this approval, Aspire must submit a revised written, signed Certification including the language under *"Certification"* in 40 C.F.R. § 761.3 and in 40 C.F.R. § 761.61(a)(3)(i)(E). Both the owner of the Aspire property and the party conducting the cleanup must sign the Certification.

**2. Pre-demolition survey.** As discussed with Aspire on October 27, 2009, Aspire shall conduct a survey and sampling of building materials in structures currently at the site to determine if PCBs are present. We understand that structures at the site were built in 1946. Considering the production period of PCB-containing materials, it is likely that building materials in structures at the site may contain PCBs. Also see Condition 3 below. In addition, the compressor, underground pipelines, and transformer present at the site shall be tested for PCBs.

**3. Sampling and analysis plan.** This sampling plan is to address pre-demolition and pre-cleanup sampling activities as well as post-demolition sampling and PCB cleanup verification sampling. Within two (2) days after the date of this approval, Aspire must submit for USEPA approval a sampling and analysis plan (SAP) describing data quality objectives, sampling procedures, quality assurance / quality

control procedures for sample collection, number of samples to be collected, sample preservation, and chain-of-custody for sample delivery to the analytical laboratory. The SAP must identify the analytical laboratory performing analysis of the samples. In addition, the SAP must include decontamination procedures for movable equipment, tools, and sampling equipment in accordance with 40 C.F.R. § 761.79(c)(2). Aspire must obtain USEPA's written approval of the SAP before beginning sampling activities.

The SAP must include the procedures that Aspire will use to characterize building materials for PCBs in structures currently present at the site and planned for demolition before beginning school construction. Aspire shall follow the requirements in 40 C.F.R. Part 761, Subpart R ("Sampling Non-liquid, Non-Metal PCB Bulk Product Waste for Purposes of Characterization for PCB Disposal in Accordance with 40 C.F.R. § 761.62, and Sampling PCB Remediation Waste Destined for Off-Site Disposal, in Accordance with 40 C.F.R. § 761.61") for sampling of building materials to determine their PCB concentration for disposal.

**4. Sequence of pre-cleanup PCB soil characterization; pre-demolition sampling (building materials); soil remediation; and soil cleanup verification.** We understand that except for certain areas in the northwestern portion of the site, most of the site is paved. Current paving materials will be removed and all above ground structures demolished. The site will be completely bare prior to construction of the school. Within five (5) days after the date of this approval, Aspire shall propose the sequence that Aspire will follow for pre-cleanup PCB soil characterization, pre-demolition sampling, soil remediation, and soil cleanup verification to prevent recontamination of soils with PCBs if building materials in existing structures and underground structures (e.g., piping) contain PCBs.

**5. PCB remediation waste; PCB bulk product waste; cleanup wastes; and disposal requirements.** PCB remediation wastes and PCB bulk product wastes may be generated at the Aspire site during the PCB cleanup and demolition of structures (e.g., corrugated metal buildings) at the site. As the generator of such waste, Aspire must meet all applicable regulatory requirements for storage and offsite disposal in 40 C.F.R. § 761.61(a)(5) (Site Cleanup) and 761.62 (Disposal of PCB Bulk Product Waste). It is also acceptable to dispose of PCB remediation waste in accordance with 40 C.F.R. §§ 761.60 and 761.70. PCBs are a hazardous waste in California. Aspire must ensure that off-site disposal of PCB wastes also meet all applicable and relevant state and local regulatory requirements. Within five (5) days after the date of this approval, provide to USEPA the EPA identification number which confirms that Aspire has an USEPA identification number to manage the PCB wastes.

- *Bulk PCB remediation wastes (e.g., PCB-contaminated soil, PCB-contaminated concrete).* Disposal requirements for bulk PCB remediation waste with PCB concentration less than 50 ppm and equal to or above 50 ppm are contained in 40 C.F.R. §§ 761.61(a)(5)(i)(B)(2)(ii) and 761.61(a)(5)(i)(B)(2)(iii), respectively. Further, the generator must provide written notice to the disposal site of the wastes being shipped for disposal in accordance with 40 C.F.R. § 761.61(a)(5)(i)(B)(2)(iv).

- *Non-porous (e.g., metal) surfaces.* Non-porous surfaces contaminated with PCBs due to spills of liquid PCBs or the migration of PCBs from a manufactured product applied to these surfaces are bulk PCB remediation wastes. Dispose of these wastes offsite in accordance with 40 C.F.R. § 761.61(a)(5)(ii)(B).

- *Porous (e.g., concrete, metal coated with a porous surface) surfaces.* Porous surfaces contaminated with PCBs due to spills of liquid PCBs or the migration of PCBs from a product applied to these surfaces are bulk PCB remediation wastes. Dispose of these wastes offsite in accordance with 40 C.F.R. § 761.61(a)(5)(i).

- *Liquids (e.g., water).* Water contaminated with PCBs at the site (e.g., water generated during excavation of soils due to shallow ground water conditions) must be disposed offsite in accordance with 40 C.F.R. § 761.61(a)(5)(iv) if the PCB concentration in the water is above the applicable standard in 40 C.F.R. § 761.79(b)(1).

- *PCB bulk product waste.* This waste is defined in 40 C.F.R. § 761.3 and disposal requirements are in 40 C.F.R. § 761.62. This waste category includes materials manufactured with PCBs where the PCB concentration in these materials at the time of designation for disposal is ≥50 ppm.

- *Cleanup wastes (e.g., non-liquid cleanup materials, personal protective equipment).* Dispose of these wastes in accordance with 40 C.F.R. § 761.61(a)(5)(v).

**6. Measures to prevent exposure of neighboring community to airborne particulates.** In the "Air Monitoring" section of the Notification, Aspire proposes to conduct real-time airborne monitoring for particulates during activities likely to generate dust such as excavation of contaminated soils. This monitoring is proposed in the context of worker health and safety. However, such monitoring shall be expanded to include airborne particulate monitoring to determine if the neighboring community is being exposed to air particulates from the site during dust generating activities including building demolition. Within five (5) days after the date of this approval, submit for review the measures that Aspire will implement (including air monitoring) to prevent exposure of neighboring communities to airborne particulates.

In addition, Aspire shall notify neighboring communities of the soil excavation and building demolition activities to be conducted at the site before beginning such activities.

**7. Cleanup levels.** Aspire plans on redeveloping the site into a public school, which is a high occupancy area. In 40 C.F.R. § 761.61(a)(4)(vi), USEPA requires a PCB cleanup level for high occupancy areas of ≤1 mg / kg (ppm) PCBs. In accordance with 40 C.F.R. § 761.61(a)(4)(vi), USEPA has the authority to specify cleanup levels that are more stringent than ≤1 ppm PCBs. USEPA is approving a cleanup level of 0.13 mg / kg (ppm) for PCBs in soils. The DTSC School Program and Alameda County Environmental Health (ACEH) had approved this PCB cleanup level for the Aspire

school site that is the subject of this conditional approval. Refer to the ACEH March 12, 2009 letter to Aspire, which is attached to the cover letter. It is also our understanding that DTSC considers cumulative health risks when addressing school sites with multiple contaminants. The Aspire site has multiple contaminants in soils and ground water.

**8. Cap (protective barrier).** USEPA requires that a cap be installed at the Aspire proposed school site in accordance with the requirements in 40 C.F.R. § 761.61(a)(7). Please note that Aspire has acquired a property to construct the proposed school that has a long history (1946 – 2008) of industrial activity during which PCB releases occurred at the site. A possibility exists for PCB congeners (i.e., weathered PCB Aroclors that are dioxin-like PCB compounds) to be present at the site due to historic PCB releases. A cap will prevent direct exposure to soils containing these compounds.

In addition, USEPA was not involved with any of the investigations so far conducted at the site prior to Aspire's October 23, 2009 Notification to USEPA. PCB contaminated soils may remain at the site due to potential uncertainties in the characterization and remediation of PCB-contaminated soils at the site; and shallow ground water conditions potentially impacting site characterization and remediation. A potential may also exist for future changes at the school grounds where penetration of barriers (e.g., concrete, asphalt surfaces) preventing exposure to onsite soils may be necessary (e.g., repair of utilities).

**9. Risk management plan and deed notice.** The regulations in 40 C.F.R. § 761.61(a)(4)(i)(A) do not require further restrictions such as a deed notice when the ≤1 ppm PCB cleanup level for high occupancy is verified as achieved via confirmatory sampling. However, USEPA believes that in addition to Conditions 7 and 8 a risk management plan would be an institutional control protective of children at the future Aspire school.

USEPA is approving the 0.13 ppm PCB soil cleanup level for the Aspire site under the condition that (1) site soils are overlain with asphalt, concrete, and / or other cap (protective barrier) that impedes direct exposure to on-site soils and (2) a deed notice that includes a risk management plan be recorded in accordance with California state law.

Within 30 days after completion of the PCB cleanup, Aspire shall submit for USEPA approval a risk management plan that at a minimum includes:

- A survey of the Aspire property and map clearly depicting all areas where PCBs were encountered and remediated,
- A description of specific activities to be prohibited at the school because of their potential to penetrate protective barriers (e.g., asphalt, concrete) that would expose onsite soils,
- A description of how the teachers, administrators, and staff at the school will be notified of the specific activities which are prohibited at the school because of their potential to penetrate protective barriers (e.g., asphalt, concrete) that would expose onsite soils and
- The conditions under which penetration or alteration of protective barriers is permitted and the contingencies that must be implemented to prevent exposure to onsite soils.

Within 60 days after completing the PCB cleanup at the Aspire site, pursuant to 40 C.F.R. § 761.61(a)(8), Aspire shall record in accordance with California state law, a notation on the deed to the property, or on some other instrument which is normally examined during a title search, that will in perpetuity notify any potential purchaser of the property ( 1 ) That the land has been used for PCB remediation waste disposal and specific activities are prohibited as described in the risk management plan described above; ( 2 ) Of the existence of the cap (protective barriers) and the requirement to maintain the protective barriers in perpetuity; and ( 3 ) The applicable cleanup levels left at the site, under the cap; and ( 4 ) the procedure by which USEPA will be notified of penetrations or alterations of the required cap. In addition, Aspire must submit to USEPA a certification signed by the owner certifying the required deed was recorded.

**10. Recordkeeping and PCB cleanup report.** The owner of the property must keep records of the PCB cleanup including any cleanup conducted prior to the date of this approval that involved the removal of PCBs from the site. All reports currently available that document PCB cleanup at the site are incorporated herein as part of the Aspire October 23, 2009 Notification. In accordance with 40 C.F.R. § 761 61(a)(9), the owner of the property must keep cleanup records as required in 40 C.F.R. § 761 125(c)(5).

Submit for approval a PCB cleanup report within 30 days after completing the PCB cleanup (including removal and disposal of PCB remediation and bulk product waste). The report must contain all supporting sample analysis results documenting achievement of the PCB cleanup level, data summaries, waste disposal, and all the information required in 40 C.F.R. § 761.125(c)(5).

**11. Restoration of the site.** After achieving the PCB cleanup level, site restoration shall be done consistent with local and California State regulatory requirements as well as in accordance with the requirements in ACEH's March 12, 2009 letter approving the LFR CAP. The PCB soil cleanup level for the Aspire site is 0.13 ppm. The PCB concentration in the backfill material should not exceed this PCB soil cleanup level.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION IX**
**75 Hawthorne Street**
**San Francisco, CA 94105**

Via U.S. Postal Service and Electronic Mail
Certified Mail Receipt No. 7000 0520 0021 6107 8407

November 13, 2009

Aspire Public Schools, a California
non-profit public benefit corporation
1001 22nd Avenue, Suite 100
Oakland, CA 94606
Attention: Mike Barr, CFO

**Re: Polychlorinated Biphenys – U.S. EPA Conditional Approval Under 40 C.F.R. § 761.61(a), Toxic Substances Control Act - - *"Toxic Substances Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California"***

Dear Mr. Barr:

We have reviewed the "*Toxic Substances Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California,*" letter dated October 23, 2009 and prepared by LFR Inc. an Arcadis Company (LFR) for Aspire Public Schools ("Aspire"). The U.S. Environmental Protection Agency Region 9 (USEPA) is approving Aspire's October 23, 2009 Notification with the conditions established in the attached *"USEPA Conditional Approval for Aspire Public Schools, 1009 66th Avenue, Oakland, CA PCB Self-Implementing On-Site Cleanup and Disposal of PCB Remediation Waste."*

The LFR letter is intended to serve as the notification and certification ("Notification") required in 40 C.F.R. § 761.61(a) of the Toxic Substances Control Act (TSCA) for a self-implementing on-site cleanup and disposal of polychlorinated biphenyls (PCBs) at the Aspire property at 1009 66th Avenue in Oakland. PCBs are present at the Aspire property ("Aspire site") in soils and a potential exists for PCB-containing manufactured products to be present in structures to be demolished at the site. Aspire plans to redevelop the site as a public school for sixth to 12th grade students.

In addition, the Notification requests a "variance" to the schedule provided in 40 C.F.R. § 761.61(a)(3)(ii). USEPA is granting the requested waiver for the schedule in 40 C.F.R. § 761.61(a)(3)(i) in accordance with 40 C.F.R. § 761.61(a)(3)(iii) and in consideration of financial matters that Aspire claims if not resolved could prevent or further delay construction of the school. However, the owner of the property still needs to obtain a similar written waiver from the California Department of Toxic Substances Control (DTSC) and Alameda County Environmental Health (ACEH) in accordance with 40 C.F.R. § 761.61(a)(3)(iii) and maintain all waivers and other records in accordance with 40 C.F.R. § 761.61(a)(9).

While we recognize that, at an October 27, 2009 meeting with Charles Robitaille (Aspire Charter Schools) and LFR representatives (Aspire consultants), Aspire had sought a cleanup standard of 0.39 mg / kg (ppm), we have decided to approve a cleanup standard of 0.13 ppm, as specified in Condition 7 of

the attached approval. This cleanup level is consistent with the levels approved by both ACEH and DTSC as being protective of human health, in that it meets the cleanup goal for PCBs in soils corresponding to a $1 \times 10^{-6}$ risk level. This level is also consistent with the TSCA regulations in 40 C.F.R. § 761.61(a)(4)(v) and 761.61(a)(4)(vi).

We look forward to be of assistance to Aspire during implementation of the subject Notification as modified by the attached USEPA approval. Please call Carmen Santos at (415) 972-3360 if you have any questions concerning this approval.

Sincerely,

for Arlene Kabei
Associate Director
Waste Management Division

Enclosure

Cc: Mark Malinowski, DTSC (Chief Schools Unit, Sacramento Office)
Tom Booze, DTSC
Paresh Khatri, Alameda County Environmental Health
Charles Robitaille, Aspire Charter Schools
Alan Gibbs, LFR Inc. an Arcadis Company
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Steve Armann, USEPA R9
Patrick Wilson, USEPA R9
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Carmen Santos, USEPA R9

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION IX**
**75 Hawthorne Street**
**San Francisco, CA 94105**

November 13, 2009

# USEPA Conditional Approval for Aspire Public Schools, 1009 66th Avenue, Oakland, CA PCB Self-Implementing On-Site Cleanup and Disposal of PCB Remediation Waste

*"Toxic Substances Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California,"* letter dated October 23, 2009 and prepared by LFR an Arcadis Company (LFR) for Aspire Public Schools ("Aspire").

The U.S. Environmental Protection Agency Region 9 (USEPA) is approving with conditions the Aspire October 23, 2009 Notification and Certification ("Notification"). The Notification is required by 40 C.F.R. § 761.61(a) of the Toxic Substances Control Act (TSCA) for a self-implementing on-site cleanup and disposal of polychlorinated biphenyls (PCBs), 40 C.F.R. § 761.61(a), at the Aspire property at 1009 66th Avenue in Oakland. Aspire must implement the terms of the Notification, as modified by the conditions of approval.

This conditional approval does not relieve the owner of the property from complying with all other applicable federal, state, and local regulations and permits. Departure from the approval conditions without prior written permission from USEPA may result in the commencement of proceedings to revoke this approval, and/or an enforcement action. Nothing in this approval bars USEPA from imposing penalties for violations of this approval or for violations caused by other activities not covered under the terms of this approval that trigger TSCA PCB requirements.

## USEPA Conditions of Approval

**1. Written, signed certification by owner of Aspire property and party conducting cleanup.** The Notification includes an incomplete, unsigned certification. Within two (2) days after the date of this approval, Aspire must submit a revised written, signed Certification including the language under *"Certification"* in 40 C.F.R. § 761.3 and in 40 C.F.R. § 761.61(a)(3)(i)(E). Both the owner of the Aspire property and the party conducting the cleanup must sign the Certification.

**2. Pre-demolition survey.** As discussed with Aspire on October 27, 2009, Aspire shall conduct a survey and sampling of building materials in structures currently at the site to determine if PCBs are present. We understand that structures at the site were built in 1946. Considering the production period of PCB-containing materials, it is likely that building materials in structures at the site may contain PCBs. Also see Condition 3 below. In addition, the compressor, underground pipelines, and transformer present at the site shall be tested for PCBs.

**3. Sampling and analysis plan.** This sampling plan is to address pre-demolition and pre-cleanup sampling activities as well as post-demolition sampling and PCB cleanup verification sampling. Within two (2) days after the date of this approval, Aspire must submit for USEPA approval a sampling and analysis plan (SAP) describing data quality objectives, sampling procedures, quality assurance / quality

control procedures for sample collection, number of samples to be collected, sample preservation, and chain-of-custody for sample delivery to the analytical laboratory. The SAP must identify the analytical laboratory performing analysis of the samples. In addition, the SAP must include decontamination procedures for movable equipment, tools, and sampling equipment in accordance with 40 C.F.R. § 761.79(c)(2). Aspire must obtain USEPA's written approval of the SAP before beginning sampling activities.

The SAP must include the procedures that Aspire will use to characterize building materials for PCBs in structures currently present at the site and planned for demolition before beginning school construction. Aspire shall follow the requirements in 40 C.F.R. Part 761, Subpart R ("Sampling Non-liquid, Non-Metal PCB Bulk Product Waste for Purposes of Characterization for PCB Disposal in Accordance with 40 C.F.R. § 761.62, and Sampling PCB Remediation Waste Destined for Off-Site Disposal, in Accordance with 40 C.F.R. § 761.61") for sampling of building materials to determine their PCB concentration for disposal.

**4. Sequence of pre-cleanup PCB soil characterization; pre-demolition sampling (building materials); soil remediation; and soil cleanup verification.** We understand that except for certain areas in the northwestern portion of the site, most of the site is paved. Current paving materials will be removed and all above ground structures demolished. The site will be completely bare prior to construction of the school. Within five (5) days after the date of this approval, Aspire shall propose the sequence that Aspire will follow for pre-cleanup PCB soil characterization, pre-demolition sampling, soil remediation, and soil cleanup verification to prevent recontamination of soils with PCBs if building materials in existing structures and underground structures (e.g., piping) contain PCBs.

**5. PCB remediation waste; PCB bulk product waste; cleanup wastes; and disposal requirements.** PCB remediation wastes and PCB bulk product wastes may be generated at the Aspire site during the PCB cleanup and demolition of structures (e.g., corrugated metal buildings) at the site. As the generator of such waste, Aspire must meet all applicable regulatory requirements for storage and offsite disposal in 40 C.F.R. § 761.61(a)(5) (Site Cleanup) and 761.62 (Disposal of PCB Bulk Product Waste). It is also acceptable to dispose of PCB remediation waste in accordance with 40 C.F.R. §§ 761.60 and 761.70. PCBs are a hazardous waste in California. Aspire must ensure that off-site disposal of PCB wastes also meet all applicable and relevant state and local regulatory requirements. Within five (5) days after the date of this approval, provide to USEPA the EPA identification number which confirms that Aspire has an USEPA identification number to manage the PCB wastes.

- *Bulk PCB remediation wastes (e.g., PCB-contaminated soil, PCB-contaminated concrete).* Disposal requirements for bulk PCB remediation waste with PCB concentration less than 50 ppm and equal to or above 50 ppm are contained in 40 C.F.R. §§ 761.61(a)(5)(i)(B)(2)(ii) and 761.61(a)(5)(i)(B)(2)(iii), respectively. Further, the generator must provide written notice to the disposal site of the wastes being shipped for disposal in accordance with 40 C.F.R. § 761.61(a)(5)(i)(B)(2)(iv).

- *Non-porous (e.g., metal) surfaces.* Non-porous surfaces contaminated with PCBs due to spills of liquid PCBs or the migration of PCBs from a manufactured product applied to these surfaces are bulk PCB remediation wastes. Dispose of these wastes offsite in accordance with 40 C.F.R. § 761.61(a)(5)(ii)(B).

- *Porous (e.g., concrete, metal coated with a porous surface) surfaces.* Porous surfaces contaminated with PCBs due to spills of liquid PCBs or the migration of PCBs from a product applied to these surfaces are bulk PCB remediation wastes. Dispose of these wastes offsite in accordance with 40 C.F.R. § 761.61(a)(5)(i).

- *Liquids (e.g., water).* Water contaminated with PCBs at the site (e.g., water generated during excavation of soils due to shallow ground water conditions) must be disposed offsite in accordance with 40 C.F.R. § 761.61(a)(5)(iv) if the PCB concentration in the water is above the applicable standard in 40 C.F.R. § 761.79(b)(1).

- *PCB bulk product waste.* This waste is defined in 40 C.F.R. § 761.3 and disposal requirements are in 40 C.F.R. § 761.62. This waste category includes materials manufactured with PCBs where the PCB concentration in these materials at the time of designation for disposal is ≥50 ppm.

- *Cleanup wastes (e.g., non-liquid cleanup materials, personal protective equipment).* Dispose of these wastes in accordance with 40 C.F.R. § 761.61(a)(5)(v).

**6. Measures to prevent exposure of neighboring community to airborne particulates.** In the "Air Monitoring" section of the Notification, Aspire proposes to conduct real-time airborne monitoring for particulates during activities likely to generate dust such as excavation of contaminated soils. This monitoring is proposed in the context of worker health and safety. However, such monitoring shall be expanded to include airborne particulate monitoring to determine if the neighboring community is being exposed to air particulates from the site during dust generating activities including building demolition. Within five (5) days after the date of this approval, submit for review the measures that Aspire will implement (including air monitoring) to prevent exposure of neighboring communities to airborne particulates.

In addition, Aspire shall notify neighboring communities of the soil excavation and building demolition activities to be conducted at the site before beginning such activities.

**7. Cleanup levels.** Aspire plans on redeveloping the site into a public school, which is a high occupancy area. In 40 C.F.R. § 761.61(a)(4)(vi), USEPA requires a PCB cleanup level for high occupancy areas of ≤1 mg / kg (ppm) PCBs. In accordance with 40 C.F.R. § 761.61(a)(4)(vi), USEPA has the authority to specify cleanup levels that are more stringent than ≤1 ppm PCBs. USEPA is approving a cleanup level of 0.13 mg / kg (ppm) for PCBs in soils. The DTSC School Program and Alameda County Environmental Health (ACEH) had approved this PCB cleanup level for the Aspire

school site that is the subject of this conditional approval. Refer to the ACEH March 12, 2009 letter to Aspire, which is attached to the cover letter. It is also our understanding that DTSC considers cumulative health risks when addressing school sites with multiple contaminants. The Aspire site has multiple contaminants in soils and ground water.

**8. Cap (protective barrier).** USEPA requires that a cap be installed at the Aspire proposed school site in accordance with the requirements in 40 C.F.R. § 761.61(a)(7). Please note that Aspire has acquired a property to construct the proposed school that has a long history (1946 – 2008) of industrial activity during which PCB releases occurred at the site. A possibility exists for PCB congeners (i.e., weathered PCB Aroclors that are dioxin-like PCB compounds) to be present at the site due to historic PCB releases. A cap will prevent direct exposure to soils containing these compounds.

In addition, USEPA was not involved with any of the investigations so far conducted at the site prior to Aspire's October 23, 2009 Notification to USEPA. PCB contaminated soils may remain at the site due to potential uncertainties in the characterization and remediation of PCB-contaminated soils at the site; and shallow ground water conditions potentially impacting site characterization and remediation. A potential may also exist for future changes at the school grounds where penetration of barriers (e.g., concrete, asphalt surfaces) preventing exposure to onsite soils may be necessary (e.g., repair of utilities).

**9. Risk management plan and deed notice.** The regulations in 40 C.F.R. § 761.61(a)(4)(i)(A) do not require further restrictions such as a deed notice when the ≤1 ppm PCB cleanup level for high occupancy is verified as achieved via confirmatory sampling. However, USEPA believes that in addition to Conditions 7 and 8 a risk management plan would be an institutional control protective of children at the future Aspire school.

USEPA is approving the 0.13 ppm PCB soil cleanup level for the Aspire site under the condition that (1) site soils are overlain with asphalt, concrete, and / or other cap (protective barrier) that impedes direct exposure to on-site soils and (2) a deed notice that includes a risk management plan be recorded in accordance with California state law.

Within 30 days after completion of the PCB cleanup, Aspire shall submit for USEPA approval a risk management plan that at a minimum includes:

- A survey of the Aspire property and map clearly depicting all areas where PCBs were encountered and remediated,
- A description of specific activities to be prohibited at the school because of their potential to penetrate protective barriers (e.g., asphalt, concrete) that would expose onsite soils,
- A description of how the teachers, administrators, and staff at the school will be notified of the specific activities which are prohibited at the school because of their potential to penetrate protective barriers (e.g., asphalt, concrete) that would expose onsite soils and
- The conditions under which penetration or alteration of protective barriers is permitted and the contingencies that must be implemented to prevent exposure to onsite soils.

Within 60 days after completing the PCB cleanup at the Aspire site, pursuant to 40 C.F.R. § 761.61(a)(8), Aspire shall record in accordance with California state law, a notation on the deed to the property, or on some other instrument which is normally examined during a title search, that will in perpetuity notify any potential purchaser of the property ( 1 ) That the land has been used for PCB remediation waste disposal and specific activities are prohibited as described in the risk management plan described above; ( 2 ) Of the existence of the cap (protective barriers) and the requirement to maintain the protective barriers in perpetuity; and ( 3 ) The applicable cleanup levels left at the site, under the cap; and ( 4 ) the procedure by which USEPA will be notified of penetrations or alterations of the required cap. In addition, Aspire must submit to USEPA a certification signed by the owner certifying the required deed was recorded.

**10. Recordkeeping and PCB cleanup report.** The owner of the property must keep records of the PCB cleanup including any cleanup conducted prior to the date of this approval that involved the removal of PCBs from the site. All reports currently available that document PCB cleanup at the site are incorporated herein as part of the Aspire October 23, 2009 Notification. In accordance with 40 C.F.R. § 761.61(a)(9), the owner of the property must keep cleanup records as required in 40 C.F.R. § 761.125(c)(5).

Submit for approval a PCB cleanup report within 30 days after completing the PCB cleanup (including removal and disposal of PCB remediation and bulk product waste). The report must contain all supporting sample analysis results documenting achievement of the PCB cleanup level, data summaries, waste disposal, and all the information required in 40 C.F.R. § 761.125(c)(5).

**11. Restoration of the site.** After achieving the PCB cleanup level, site restoration shall be done consistent with local and California State regulatory requirements as well as in accordance with the requirements in ACEH's March 12, 2009 letter approving the LFR CAP. The PCB soil cleanup level for the Aspire site is 0.13 ppm. The PCB concentration in the backfill material should not exceed this PCB soil cleanup level.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION IX**
**75 Hawthorne Street**
**San Francisco, CA 94105**

Via U.S. Postal Service and Electronic Mail
Certified Mail Receipt No. 7008 1830 0002 6279 5325
Return Receipt Requested

April 5, 2011

Mr. Mike Barr
Aspire Public Schools
1001 22nd Avenue, Suite 100
Oakland, CA 94606

**Re: Aspire Public School, 1009 66th Avenue, Oakland, California – USEPA November 13, 2009 Approval of Polychlorinated Biphenyls' Cleanup Notification Under Toxic Substances Control Act – Request for Cap Modification**

Dear Mr. Barr:

We appreciate Ron Goloubow's (Arcadis) March 31, 2011 letter[1] requesting on behalf of College for Certain, LLC a modification to the cap for soils contaminated with polychlorinated biphenyls (PCBs) required under the Toxic Substances Control Act (TSCA) regulations in 40 CFR 761.61(a)(7). On November 13, 2009, the U.S. Environmental Protection Agency, Region 9 (USEPA) approved with conditions the October 23, 2009 *"Toxic Substances Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California"* (Notification) prepared by Arcadis for Aspire Public Schools. That approval under 40 CFR 761.61(a) (self-implementing PCB cleanup) requires a cap be constructed at the entire Aspire site consistent with the requirements in 40 CFR 761.61(a)(7) for a concrete cap. Such a cap is required to be 6 inches thick.

In the attached letter, Arcadis is proposing a modified design for the rat slabs over which the schools modular buildings will be installed. These modified rat slabs are proposed as an alternate cap design for the portion of the site where the modular buildings will be located and such proposed cap differs from the concrete cap required in 40 CFR 761.61(a)(7). The proposed alternate cap (modified rat slab) is a 6-inch-layered cap that will be constructed atop 18-inches of cement-treated native soil contaminated with residual PCB levels. The 18-inch soil layer is underlain by native soils. The proposed alternate cap consists of a 4-inch thick layer of imported base rock atop the 18-inch cement treated soils and a 2-inch thick Portland cement concrete layer atop the base rock layer.

The purpose of the cap is to prevent exposure of human and ecological receptors to soils with residual PCB contamination. The 6-inch concrete cap approved on November 13, 2009 is a mitigation measure for soils at the site with residual PCB levels of 0.13 mg/kg (cleanup level) and levels of PCBs below 3 mg/kg in two specific areas of the site where the cleanup level could not be achieved. The modified cap will prevent receptor exposure

[1] Letter from Ron Goloubow (Arcadis) dated March 31, 2011 (Subject: "Proposed Toxic Substances Control (TSCA) Cap for Modular Buildings – Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California") to Carmen Santos (USEPA Region 9).

to residual PCBs in soils since all soils at the Aspire site will be capped and no soils will be left exposed. Rain water infiltration should be minimal through the upper 2-inch concrete layer of the cap.

We are approving the proposed design for the alternate cap (modified rat slab) under the TSCA regulations in 40 CFR 761.61(c) (risk-based cleanup option). We believe this alternate cap is still protective of human health and the environment provided that required maintenance and repairs are conducted as required in Condition 9 of the November 13, 2009 approval. The rat slab is a portion of the site-wide cap required for the Aspire site in USEPA's November 13, 2009 conditional approval of the October 23, 2009 Notification of PCB cleanup at the Aspire site. This approval modifies a portion of the site-wide cap required in Condition 8 of USEPA's November 13, 2009 letter. This approval does not modify Condition 9 in USEPA's November 13, 2009 Notification approval that requires maintenance and repair of the cap in perpetuity. The requirements in Condition 9 are equivalent and consistent with the requirements in 40 CFR 761.61(a)(8).

We look forward to being of assistance to College for Certain LLC during implementation of the work remaining in the Notification as modified by the conditions of approval, construction of the rat slab, and review of future modifications that College for Certain, LLC may propose to portions of the cap not addressed in this modification of USEPA's November 13, 2009 approval letter. Please call Carmen Santos of my staff at 415.972.3360 if you have any questions concerning this letter.

Sincerely,

Arlene Kabei

for Jeff Scott, Director
Waste Management Division

Enclosures (1)

Cc: Ron Goloubow, Arcadis
Michael Rueda, Pacific Charter School Development
Arlene Kabei, USEPA R9
Steve Armann, USEPA R9
Carmen Santos, USEPA R9

ARCADIS

*Infrastructure, environment, buildings*

ARCADIS U.S., Inc.
1900 Powell Street 11th Floor
Emeryville, CA 94608
Tel 510.652.4500
Fax 510.652.4906
www.arcadis-us.com

Ms. Carmen Santos
U.S. Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

*sent via email only*

Environmental

Subject:
Proposed Toxic Substance Control Act (TSCA) Cap for Modular Buildings – Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California

Date:
March 31, 2011

Contact:
Ron Goloubow

Phone:
510.596.9550

E-mail:
ron.goloubow@arcadis-us.com

Our ref:
EM009155.0010.00001

Dear Ms. Santos:

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this letter to provide the revised details regarding the design of the Toxic Substance Control Act (TSCA) Cap for Modular Buildings to be installed under the Modular Buildings to be installed at 1009 66th Avenue in Oakland, California ("the Site"; Figures 1, 2, and 3). This area under the Modular Buildings has been referred to as the "rat slab".

As we have been discussing the rat slab will serve as the TSCA Cap beneath the modular buildings to eliminate the potential exposure pathway to soil that may contain polychlorinated biphenyls (PCBs) at the Site.

**Proposed Rat Slab Design**

The details regarding the proposed design for the rat slabs is illustrated on hand drawn Figure 3. Figure 2 provides a summary of the design for the proposed rat slabs as well as the revised TSCA cap for the other portions of the Site. The locations of the modular buildings, also described as relocatable buildings are presorted on Figure 2. ARCADIS will provide a request to approve the revised TSCA cap for the other portions of the Site under separate cover.

As discussed between representatives of ARCADIS and U.S.EPA on March 29 and 31, 2011 the proposed TSCA Cap design for the rat slabs will be comprised as follows (from the bottom up):

- Native soil
- 18 - Inches of cement treated native soil
- 4- Inches of imported aggregate base rock and
- 2- Inches of Portland cement concrete

**Closing**

Blackwell Construction (on behalf of CFC) is in the process of installing the modular (relocatable) buildings and needs to finalize the design of the rat slabs by Friday, April 1, 2011. ARCADIS will contact representatives of U.S. EPA April 1, 2011 to determine if the design provided in this letter is acceptable. We at ARCADIS appreciate working with you and your team and look forward to bringing this project to closure with the U.S. EPA in the near future.

Sincerely,

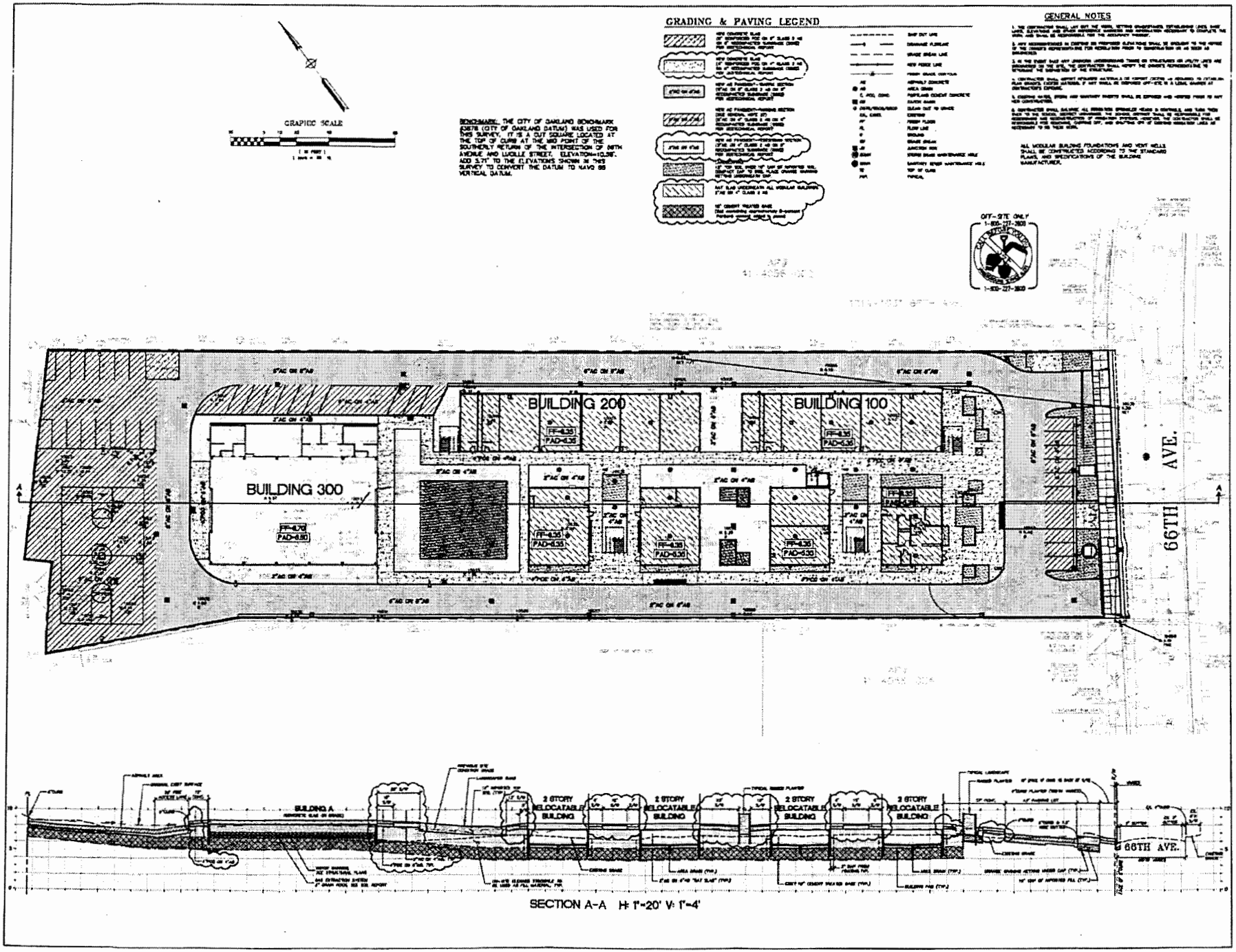
ARCADIS U.S., Inc.

Ron Goloubow, P.G.
Principal Geologist

Copies:
Mike Rueda – Pacific Charter Schools
Brad Kettle – Blackwell Construction

Enclosures:

Figure 1 – Site Vicinity Map
Figure 2 – Site Plan
Figure 3 – Rat Slab Design (hand drawn map)




K2A
ARCHITECTURE + INTERIORS

Client
College for Certain, LLC

Project Name
Aspire 66th Ave

Consultants

Sheet Name
PAVING PLAN

Approval Stamp

Revisions
FOR EPA REVIEW
03-23-2011

Sheet Information
Drawing Scale: 1"=20'
Drawn By: VD/MM

Project Information
Date: 08/26/2010
Status: Pre 1 Permit Sub.
Project Number: 1005

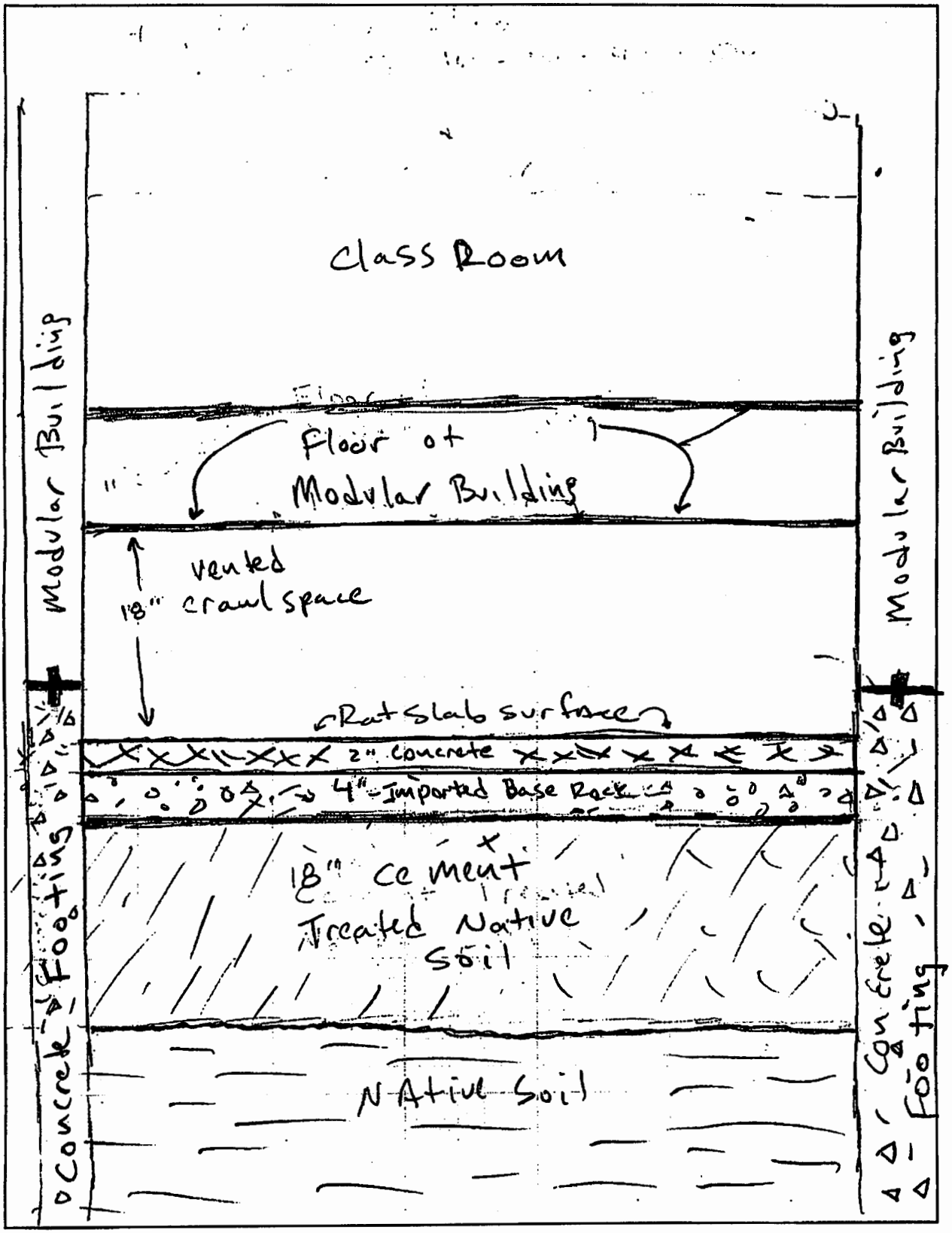
Sheet
1-C3.0

ARCADIS

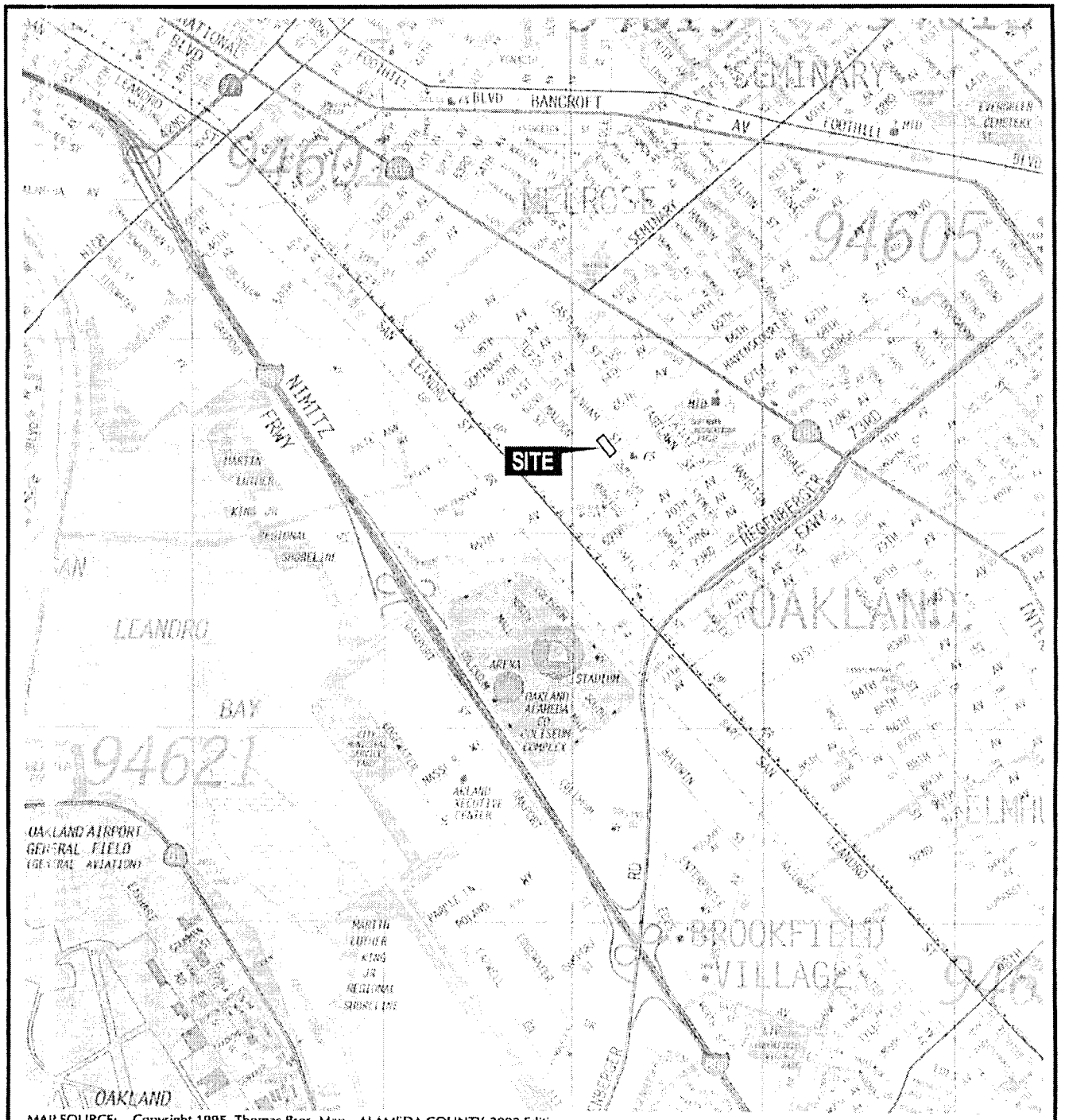
SUBJECT: Aspire - TSCA CAP
Rat Slab Design
JOB NO: For Modular Buildings

BY: RONG DATE: 3/31/11
CHKD: DATE:
Figure 3

PAGE 1
SHEET 1/1




AGM Form 30 12-01

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0 2,000 4,000 FEET

1009 66TH AVENUE, OAKLAND, CALIFORNIA

**SITE VICINITY MAP**

ARCADIS

FIGURE 1

DESIGN\0031\09155\Figure 1 Site Vicinity - 003-09155.cdr

Imagine the result

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION IX**
**75 Hawthorne Street**
**San Francisco, CA 94105**

Via U.S. Postal Service and Electronic Mail

June 16, 2011

Mr. Mike Barr
College for Certain, LLC - Aspire Public Schools
Chief Financial Officer
1001 22nd Avenue, Suite 100
Oakland, CA 94606

**Re: Aspire Public School, 1009 66th Avenue, Oakland, California – USEPA November 13, 2009 Approval of Polychlorinated Biphenyls' Cleanup Notification Under Toxic Substances Control Act – New Request for Additional Cap Modification**

Dear Mr. Barr:

This letter responds to Ron Goloubow's (Arcadis) April 25, 2011 letter[1] requesting on behalf of College for Certain, LLC additional modifications to the cap for soils contaminated with polychlorinated biphenyls (PCBs) required under the Toxic Substances Control Act (TSCA) regulations in 40 CFR 761.61(a)(7). On November 13, 2009, the U.S. Environmental Protection Agency, Region 9 (USEPA) approved with conditions the October 23, 2009 *"Toxic Substances Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California"* (Notification) prepared by Arcadis for Aspire Public Schools. That approval under 40 CFR 761.61(a) (self-implementing PCB cleanup) requires a cap be constructed at the entire Aspire site consistent with the requirements in 40 CFR 761.61(a)(7) for a concrete cap. Such a cap is required to be 6 inches thick.

In the attached letter, Arcadis is proposing an alternate cap design for the entire site-wide cap and excluding those areas of the cap where rat slabs will be constructed for the school's modular buildings. USEPA's April 5, 2011 approved the rat slab design that Arcadis had proposed in March 2011 and such design also modified the site-wide cap. The rat slab is a portion of the site-wide cap that USEPA required in its November 13, 2009 conditional approval of the October 23, 2009 Notification for the Aspire school site.

The additional cap modifications proposed in the attached Arcadis' April 25, 2011 letter and described in Figure 2 (Proposed Pavement Plan) of that letter differ from the cap requirements in 40

[1] Letter from Ron Goloubow (Arcadis) dated April 25, 2011 (Subject: "Proposed Toxic Substances Control (TSCA) Cap for Pavement Areas – Former Pacific Motors Facility, 1009 66th Avenue, Oakland, California") to Carmen Santos (USEPA Region 9).

CFR 761.61(a)(7) and include landscape areas. Figure 2 also describes the soils that will be used to construct the proposed landscape areas; and those areas were not a feature of the original site-wide cap proposed in the October 2009 Notification consistent with the cap requirements in 40 CFR 761.61(a)(7).

We are approving the proposed design for the site-wide cap (excluding the already approved design for the rat slab areas) and landscape areas described in the attached Arcadis' letter under the TSCA regulations in 40 CFR 761.61(c) (risk-based cleanup option) with the conditions established below. This approval modifies the site-wide cap (excluding the rat slabs) required in Condition 8 of USEPA's November 13, 2009 conditional approval letter.

**Conditions of Approval for Additional Site-Wide Cap Modifications**

1. **Imported Soil for Use at the Aspire Site.** Within 15 days after the date of this approval, please submit a summary of the sampling approach that Arcadis will use to collect samples of imported soils planned to be used at the Aspire site in the landscape areas and possibly at other areas of the site. This summary should also be submitted to the Alameda County Department of Environmental Health (ACDEH). The California Department of Toxic Substances Control (DTSC) *"Information Advisory Clean Imported Fill Material,"* dated October 2001 or latest revision should be used as guidance in developing the required summary. PCBs in the imported soil must be below the site cleanup level of 0.13 mg/kg total PCBs as Aroclors. The levels of non-PCB contaminants must be below the criteria referenced in the Advisory as modified by recent criteria updates. Discrete soil samples must be collected instead of composite samples.

   Within 10 days after Arcadis' receipt of the laboratory analytical results for the imported soil samples, please submit the laboratory analysis results to USEPA for review before imported soils are placed in the landscape areas designated in Figure 2 of the attached Arcadis' letter. This data must also be provided to ACDEH.

2. **Proposed Landscape Areas.** As described in the attached Arcadis' letter, the proposed landscape areas will consist of an 18-inch layer of cement-treated site soils (bottom layer), a 10-inch soil layer (middle layer) from soils excavated at the site during trenching, and a 12-inch layer (top layer) of imported soils. According to Arcadis, the bottom soil layer contains PCBs at concentrations below the site-specific cleanup level of 0.13 total PCBs as Aroclors. The 10-inch native soil layer proposed to be added above the 18-inch cement-treated soil layer must be replaced with imported soils that have been tested as required in Condition 1 above. This requirement is based on the fact that soils derived from trench excavations at the site that have not been tested for PCBs and other non-PCB contaminants are proposed for use in the 10-inch soil layer for the landscape areas. Edible plants, fruits, and vegetables should not be planted in the proposed landscape areas.

3. **Notification to Alameda County Department of Environmental Health (ACDEH).** The ACDEH must be notified of the proposed changes to the site-wide cap and inclusion of landscape areas in the cap design given the County's regulatory involvement with the Aspire site.

4. **Modified Site-Wide Cap.** Approval of the modified site-wide cap is only in context to the ability of such cap to prevent human and ecological exposures to PCB levels remaining at the site consistent with the cap requirements in USEPA's November 13, 2009 letter approving the Notification and the TSCA regulations. This approval does not cover structural issues related to the ability of the cap to properly support any estimated load(s) used in developing the cap design.

This approval does not modify Condition 9 in USEPA's November 13, 2009 letter conditionally approving Aspire's Notification. Condition 9 requires maintenance and repair of the cap in perpetuity and the requirements in that Condition are equivalent and consistent with the requirements in 40 CFR 761.61(a)(8).

We look forward to being of assistance to College for Certain, LLC during implementation of the work remaining in the Notification as modified by the conditions of approval; and to the construction of the site-wide cap as modified by the conditions of approval herein and in USEPA's April 5, 2011 approval letter. Please call Carmen Santos of my staff at 415.972.3360 if you have any questions concerning this letter.

Sincerely,

for Jeff Scott, Director
Waste Management Division

Enclosures (1)

Cc: Ron Goloubow, Arcadis
Michael Rueda, Pacific Charter School Development
Paresh Khatri, Alameda County Environmental Health
Arlene Kabei, USEPA R9
Steve Armann, USEPA R9
Carmen Santos, USEPA R9

ARCADIS
*Infrastructure, environment, buildings*

ARCADIS U.S., Inc.
1900 Powell Street 11th Floor
Emeryville, CA 94608
Tel 510.652.4500
Fax 510.652.4906
**www.arcadis-us.com**

Ms. Carmen Santos
U.S. Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

*sent via email only*

Environmental

Subject:
Proposed Toxic Substance Control Act (TSCA) Cap for Pavement Areas – Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California

Date:
April 25, 2011

Contact:
Ron Goloubow

Phone:
510.596.9550

E-mail:
ron.goloubow@arcadis-us.com

Our ref:
EM009155.0010.00001

Dear Ms. Santos:

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this letter to provide the revised details regarding the design of the Toxic Substance Control Act (TSCA) Cap for pavement and landscaped areas to be installed at 1009 66th Avenue in Oakland, California ("the Site"; Figures 1, and 2). The purpose of the cap is to prevent human and ecological exposure to any soil that may contain polychlorinated biphenyls (PCBs) at concentrations greater than the site specific clean-up goal of 0.135 milligrams per kilogram. As we have discussed, PCB-affected soil that might remain at the Site would likely be located within the interval of the cement treated soil. Depended upon the pavement and landscaping design provided below, that soil would be covered by a minimum of 6 to 13 inches of cap material (see pavement details on Figure 2).

**Proposed Pavement Design**

The details regarding the proposed pavement design for the Site is illustrated on Figure 2. As illustrated there are six different designs for pavement thicknesses depended upon the specific traffic - Site use in the area.

The proposed TSCA Cap designs will be comprised as follows (from the bottom up to the ground surface):

**Trash Enclosure Area**

- Native soil
- 18 - Inches of cement treated native soil
- 6 - Inches of imported aggregate base rock and
- 6- Inches of Portland cement concrete

**Pedestrian Walkway Areas - Concrete**

- Native soil
- 18 - Inches of cement treated native soil
- 4- Inches of imported aggregate base rock and
- 4- Inches of Portland cement concrete

**Vehicle Traffic Areas**

- Native soil
- 18 - Inches of cement treated native soil
- 10- Inches of imported aggregate base rock and
- 3- Inches of asphalt concrete

**Parking Areas**

- Native soil
- 18 - Inches of cement treated native soil
- 8- Inches of imported aggregate base rock and
- 2.5- Inches of asphalt concrete

**Pedestrian Walkway Areas - Asphalt**

- Native soil
- 18 - Inches of cement treated native soil
- 4- Inches of imported aggregate base rock and
- 2- Inches of asphalt concrete

**Landscaped Areas**

- Native soil
- 18 - Inches of cement treated native soil
- 10- Inches of native soil
- 12- Inches of imported top soil

## Closing

Blackwell Construction (on behalf of CFC) is in the process of installing the modular (re-locatable) buildings. The next phase of the construction project at the Site will be to install the "hard-scape" that will include the asphalt and concrete pavement area described above.

ARCADIS will contact representatives of U.S. EPA on Monday, May 2, 2011 to determine if the design provided in this letter is acceptable. We at ARCADIS appreciate working with you and your team and look forward to bringing this project to closure with the U.S. EPA in the near future.

Sincerely,

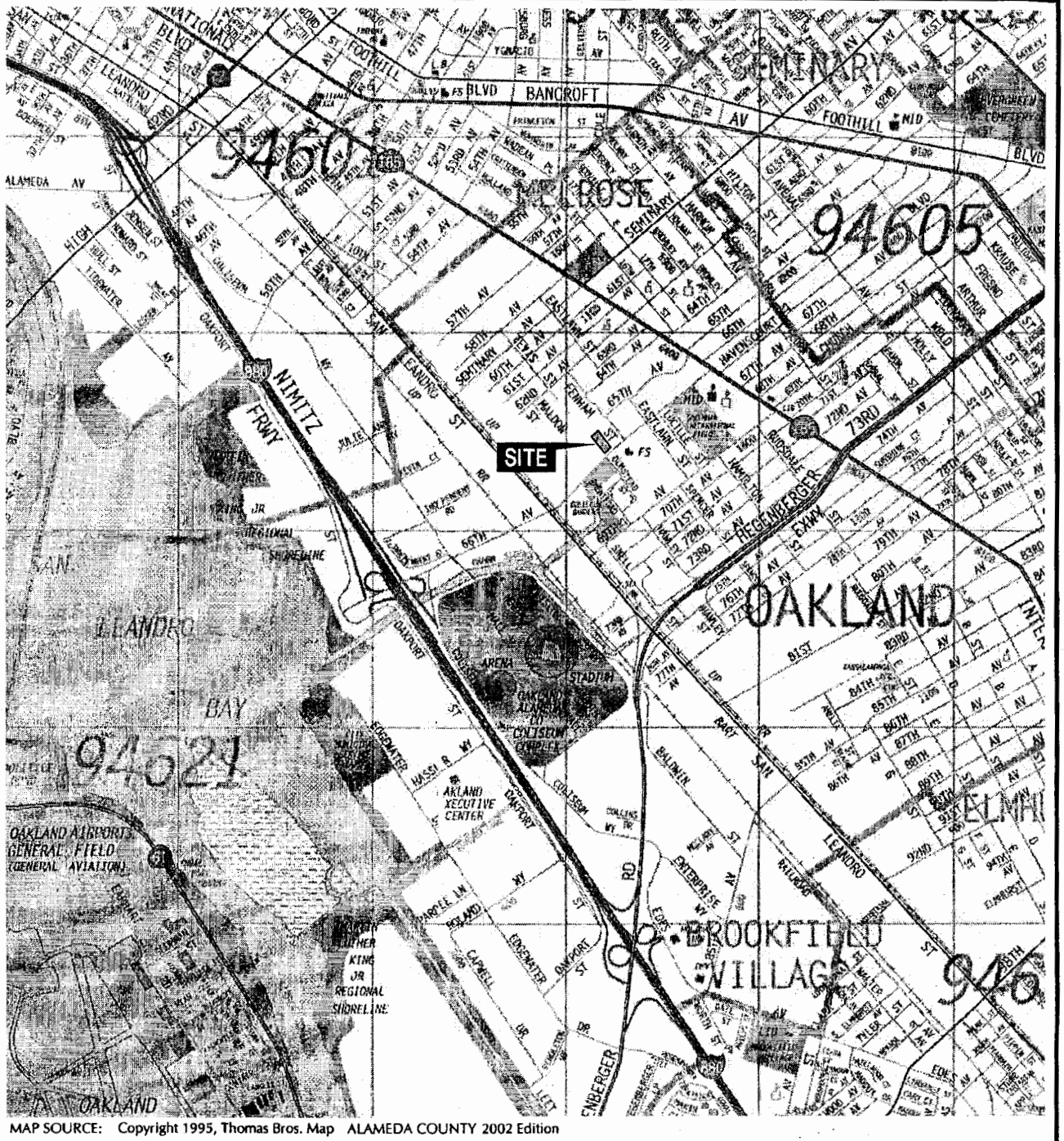
ARCADIS U.S., Inc.

Ron Goloubow, P.G.
Principal Geologist

Copies:
Mike Rueda – Pacific Charter Schools
Brad Kettle – Blackwell Construction

Enclosures:

Figure 1 – Site Vicinity Map
Figure 2 – Proposed Pavement Plan

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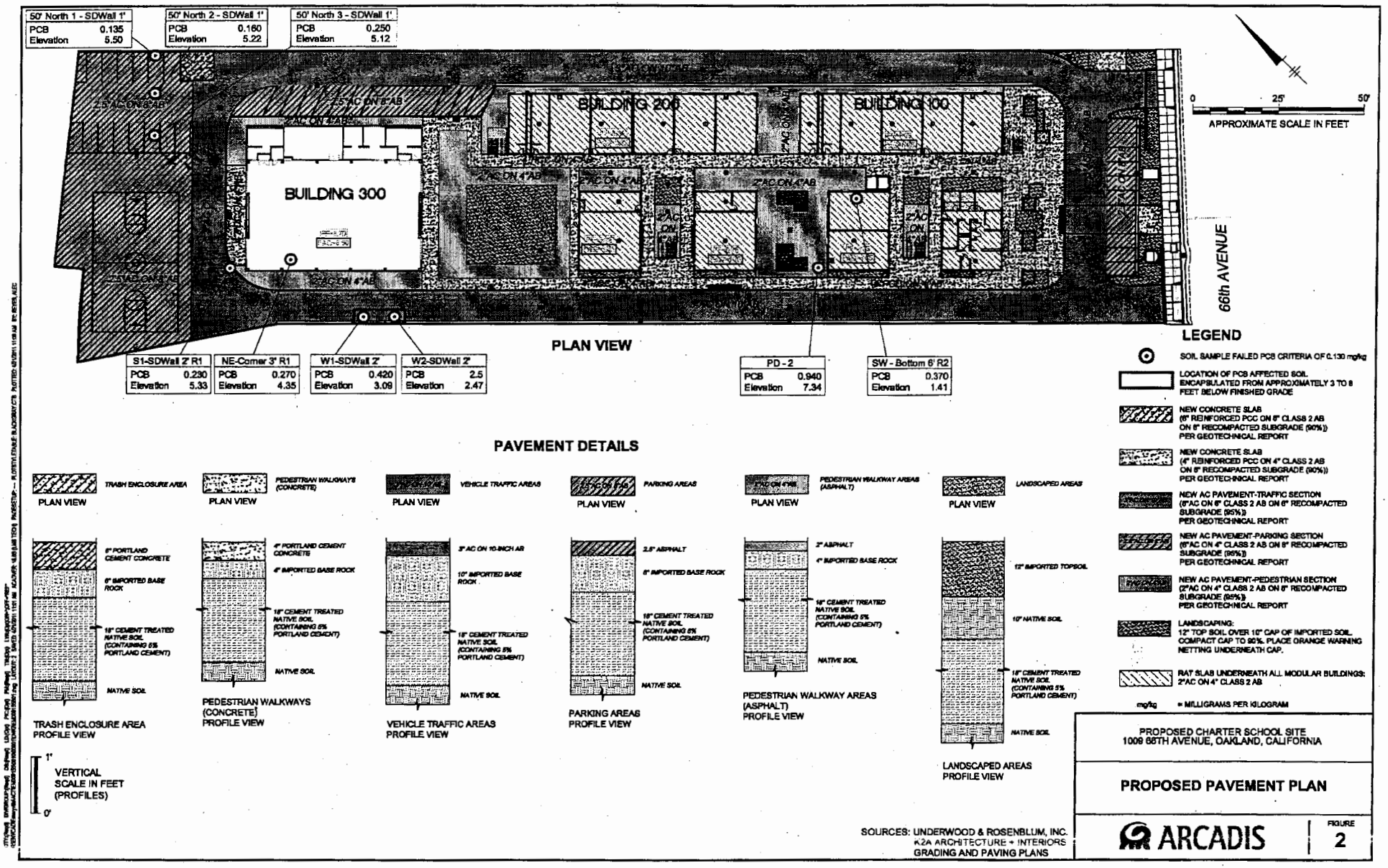
1009 66TH AVENUE, OAKLAND, CALIFORNIA

**SITE VICINITY MAP**

ARCADIS

FIGURE 1

DESIGN\003\09155\Figure 1 Site Vicinity - 003-09155.cdr


50' North 1 - SDWall 1'
PCB 0.135
Elevation 5.50
50' North 2 - SDWall 1'
PCB 0.160
Elevation 5.22
50' North 3 - SDWall 1'
PCB 0.250
Elevation 5.12
BUILDING 300
BUILDING 200
BUILDING 100
2.5" AC ON 6" AB
2" AC ON 4" AB
0 25' 50'
APPROXIMATE SCALE IN FEET
66th AVENUE
PLAN VIEW
S1-SDWall 2' R1
PCB 0.230
Elevation 5.33
NE-Corner 3' R1
PCB 0.270
Elevation 4.35
W1-SDWall 2'
PCB 0.420
Elevation 3.09
W2-SDWall 2'
PCB 2.5
Elevation 2.47
PD - 2
PCB 0.940
Elevation 7.34
SW - Bottom 6' R2
PCB 0.370
Elevation 1.41
PAVEMENT DETAILS
TRASH ENCLOSURE AREA
PEDESTRIAN WALKWAYS (CONCRETE)
VEHICLE TRAFFIC AREAS
PARKING AREAS
PEDESTRIAN WALKWAY AREAS (ASPHALT)
LANDSCAPED AREAS
PLAN VIEW
6" PORTLAND CEMENT CONCRETE
6" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 5% PORTLAND CEMENT)
NATIVE SOIL
TRASH ENCLOSURE AREA PROFILE VIEW
4" PORTLAND CEMENT CONCRETE
4" IMPORTED BASE ROCK
PEDESTRIAN WALKWAYS (CONCRETE) PROFILE VIEW
3" AC ON 10-INCH AB
10" IMPORTED BASE ROCK
VEHICLE TRAFFIC AREAS PROFILE VIEW
2.5" ASPHALT
PARKING AREAS PROFILE VIEW
2" ASPHALT
PEDESTRIAN WALKWAY AREAS (ASPHALT) PROFILE VIEW
12" IMPORTED TOPSOIL
10" NATIVE SOIL
LANDSCAPED AREAS PROFILE VIEW
1"
VERTICAL SCALE IN FEET (PROFILES)
0'
LEGEND
SOIL SAMPLE FAILED PCB CRITERIA OF 0.130 mg/kg
LOCATION OF PCB AFFECTED SOIL ENCAPSULATED FROM APPROXIMATELY 3 TO 8 FEET BELOW FINISHED GRADE
NEW CONCRETE SLAB (6" REINFORCED PCC ON 6" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
NEW CONCRETE SLAB (4" REINFORCED PCC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
NEW AC PAVEMENT-TRAFFIC SECTION (8" AC ON 6" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
NEW AC PAVEMENT-PARKING SECTION (6" AC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
NEW AC PAVEMENT-PEDESTRIAN SECTION (2" AC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
LANDSCAPING: 12" TOP SOIL OVER 10" CAP OF IMPORTED SOIL. COMPACT CAP TO 90%. PLACE ORANGE WARNING NETTING UNDERNEATH CAP.
RAT SLAB UNDERNEATH ALL MODULAR BUILDINGS: 2" AC ON 4" CLASS 2 AB
mg/kg = MILLIGRAMS PER KILOGRAM
SOURCES: UNDERWOOD & ROSENBLUM, INC.
K2A ARCHITECTURE + INTERIORS
GRADING AND PAVING PLANS
PROPOSED CHARTER SCHOOL SITE
1009 66TH AVENUE, OAKLAND, CALIFORNIA
PROPOSED PAVEMENT PLAN
ARCADIS
FIGURE
2

7008 1830 0002 6279 5325

Postage $

Sent To
Mike Barr
Street, Apt. No.; or PO Box No.
1001 82nd Avenue
City, State, ZIP+4
Oakland, CA 94606-5200

PS Form 3800, August 2006 See Reverse for Instructions

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**REGION IX**
**75 Hawthorne Street**
**San Francisco, CA 94105**

Via U.S. Postal Service and Electronic Mail
Certified Mail Receipt No. 7008 1830 0002 6279 5325
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April 5, 2011

Mr. Mike Barr
Aspire Public Schools
1001 22nd Avenue, Suite 100
Oakland, CA 94606

**Re: Aspire Public School, 1009 66th Avenue, Oakland, California – USEPA November 13, 2009 Approval of Polychlorinated Biphenyls' Cleanup Notification Under Toxic Substances Control Act – Request for Cap Modification**

Dear Mr. Barr:

We appreciate Ron Goloubow's (Arcadis) March 31, 2011 letter[1] requesting on behalf of College for Certain, LLC a modification to the cap for soils contaminated with polychlorinated biphenyls (PCBs) required under the Toxic Substances Control Act (TSCA) regulations in 40 CFR 761.61(a)(7). On November 13, 2009, the U.S. Environmental Protection Agency, Region 9 (USEPA) approved with conditions the October 23, 2009 *"Toxic Substances Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California"* (Notification) prepared by Arcadis for Aspire Public Schools. That approval under 40 CFR 761.61(a) (self-implementing PCB cleanup) requires a cap be constructed at the entire Aspire site consistent with the requirements in 40 CFR 761.61(a)(7) for a concrete cap. Such a cap is required to be 6 inches thick.

In the attached letter, Arcadis is proposing a modified design for the rat slabs over which the schools modular buildings will be installed. These modified rat slabs are proposed as an alternate cap design for the portion of the site where the modular buildings will be located and such proposed cap differs from the concrete cap required in 40 CFR 761.61(a)(7). The proposed alternate cap (modified rat slab) is a 6-inch-layered cap that will be constructed atop 18-inches of cement-treated native soil contaminated with residual PCB levels. The 18-inch soil layer is underlain by native soils. The proposed alternate cap consists of a 4-inch thick layer of imported base rock atop the 18-inch cement treated soils and a 2-inch thick Portland cement concrete layer atop the base rock layer.

The purpose of the cap is to prevent exposure of human and ecological receptors to soils with residual PCB contamination. The 6-inch concrete cap approved on November 13, 2009 is a mitigation measure for soils at the site with residual PCB levels of 0.13 mg/kg (cleanup level) and levels of PCBs below 3 mg/kg in two specific areas of the site where the cleanup level could not be achieved. The modified cap will prevent receptor exposure

[1] Letter from Ron Goloubow (Arcadis) dated March 31, 2011 (Subject: "Proposed Toxic Substances Control (TSCA) Cap for Modular Buildings – Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California") to Carmen Santos (USEPA Region 9).

to residual PCBs in soils since all soils at the Aspire site will be capped and no soils will be left exposed. Rain water infiltration should be minimal through the upper 2-inch concrete layer of the cap.

We are approving the proposed design for the alternate cap (modified rat slab) under the TSCA regulations in 40 CFR 761.61(c) (risk-based cleanup option). We believe this alternate cap is still protective of human health and the environment provided that required maintenance and repairs are conducted as required in Condition 9 of the November 13, 2009 approval. The rat slab is a portion of the site-wide cap required for the Aspire site in USEPA's November 13, 2009 conditional approval of the October 23, 2009 Notification of PCB cleanup at the Aspire site. This approval modifies a portion of the site-wide cap required in Condition 8 of USEPA's November 13, 2009 letter. This approval does not modify Condition 9 in USEPA's November 13, 2009 Notification approval that requires maintenance and repair of the cap in perpetuity. The requirements in Condition 9 are equivalent and consistent with the requirements in 40 CFR 761.61(a)(8).

We look forward to being of assistance to College for Certain LLC during implementation of the work remaining in the Notification as modified by the conditions of approval, construction of the rat slab, and review of future modifications that College for Certain, LLC may propose to portions of the cap not addressed in this modification of USEPA's November 13, 2009 approval letter. Please call Carmen Santos of my staff at 415.972.3360 if you have any questions concerning this letter.

Sincerely,

Arlene Kabei

for Jeff Scott, Director
Waste Management Division

Enclosures (1)

Cc: Ron Goloubow, Arcadis
Michael Rueda, Pacific Charter School Development
Arlene Kabei, USEPA R9
Steve Armann, USEPA R9
Carmen Santos, USEPA R9

ARCADIS

*Infrastructure, environment, buildings*

ARCADIS U.S., Inc.
1900 Powell Street 11th Floor
Emeryville, CA 94608
Tel 510.652.4500
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**www.arcadis-us.com**

Ms. Carmen Santos
U.S. Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

*sent via email only*

Environmental

Subject:
Proposed Toxic Substance Control Act (TSCA) Cap for Modular Buildings – Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California

Date:
March 31, 2011

Contact:
Ron Goloubow

Phone:
510.596.9550

E-mail:
ron.goloubow@arcadis-us.com

Our ref:
EM009155.0010.00001

Dear Ms. Santos:

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this letter to provide the revised details regarding the design of the Toxic Substance Control Act (TSCA) Cap for Modular Buildings to be installed under the Modular Buildings to be installed at 1009 66th Avenue in Oakland, California ("the Site"; Figures 1, 2, and 3). This area under the Modular Buildings has been referred to as the "rat slab".

As we have been discussing the rat slab will serve as the TSCA Cap beneath the modular buildings to eliminate the potential exposure pathway to soil that may contain polychlorinated biphenyls (PCBs) at the Site.

**Proposed Rat Slab Design**

The details regarding the proposed design for the rat slabs is illustrated on hand drawn Figure 3. Figure 2 provides a summary of the design for the proposed rat slabs as well as the revised TSCA cap for the other portions of the Site. The locations of the modular buildings, also described as relocatable buildings are presorted on Figure 2. ARCADIS will provide a request to approve the revised TSCA cap for the other portions of the Site under separate cover.

As discussed between representatives of ARCADIS and U.S.EPA on March 29 and 31, 2011 the proposed TSCA Cap design for the rat slabs will be comprised as follows (from the bottom up):

- Native soil
- 18 - Inches of cement treated native soil
- 4- Inches of imported aggregate base rock and
- 2- Inches of Portland cement concrete

**Closing**

Blackwell Construction (on behalf of CFC) is in the process of installing the modular (relocatable) buildings and needs to finalize the design of the rat slabs by Friday, April 1, 2011. ARCADIS will contact representatives of U.S. EPA April 1, 2011 to determine if the design provided in this letter is acceptable. We at ARCADIS appreciate working with you and your team and look forward to bringing this project to closure with the U.S. EPA in the near future.

Sincerely,

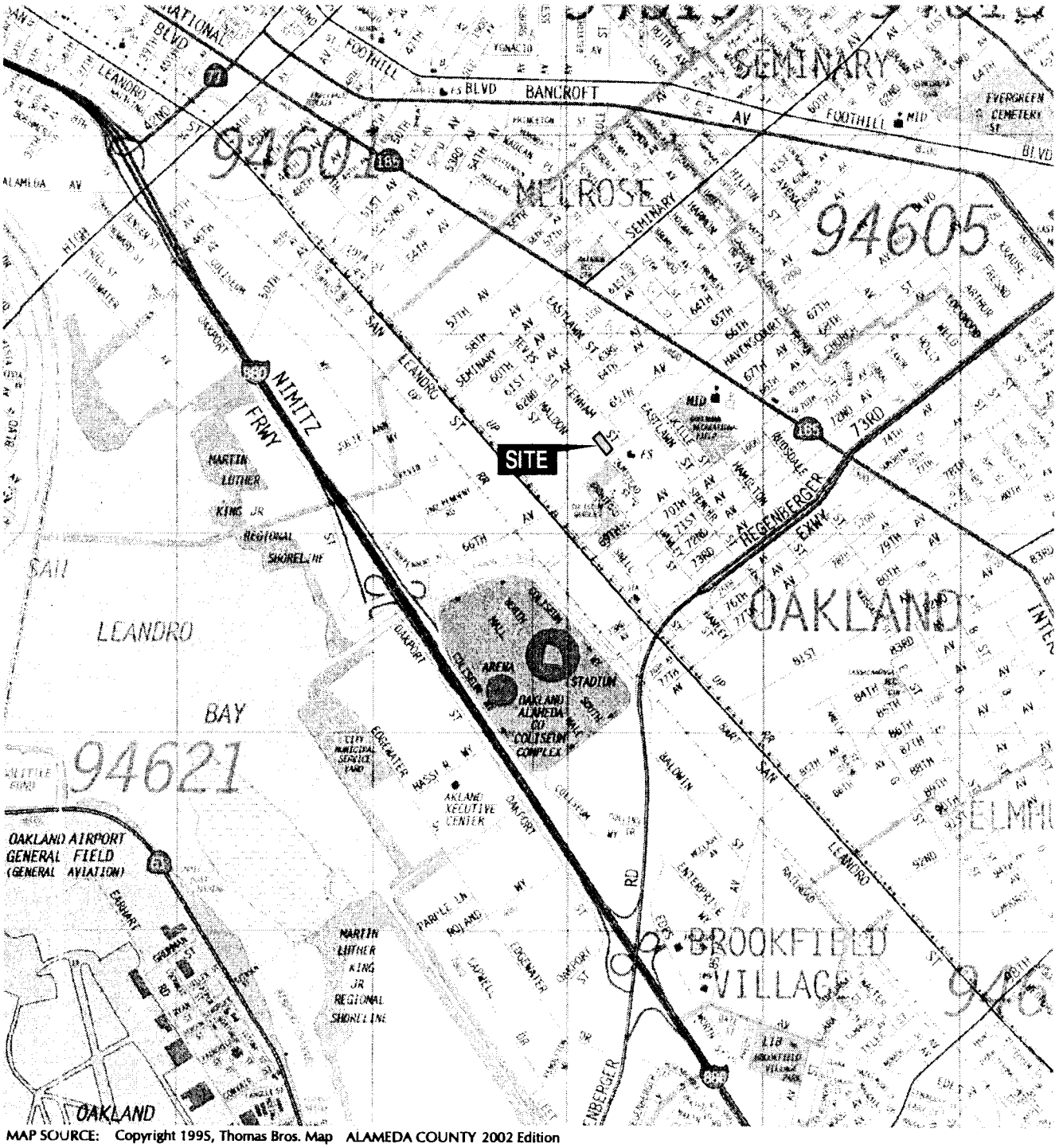
ARCADIS U.S., Inc.

Ron Goloubow, P.G.
Principal Geologist

Copies:
Mike Rueda – Pacific Charter Schools
Brad Kettle – Blackwell Construction

Enclosures:

Figure 1 – Site Vicinity Map
Figure 2 – Site Plan
Figure 3 – Rat Slab Design (hand drawn map)




MAP SOURCE: Copyright 1995, Thomas Bros. Map ALAMEDA COUNTY 2002 Edition

0 2,000 4,000 FEET

1009 66TH AVENUE, OAKLAND, CALIFORNIA

**SITE VICINITY MAP**

ARCADIS

FIGURE 1

DESIGN\003\09155\Figure 1 Site Vicinity - 003-09155.cdr

Imagine the result

GRAPHIC SCALE

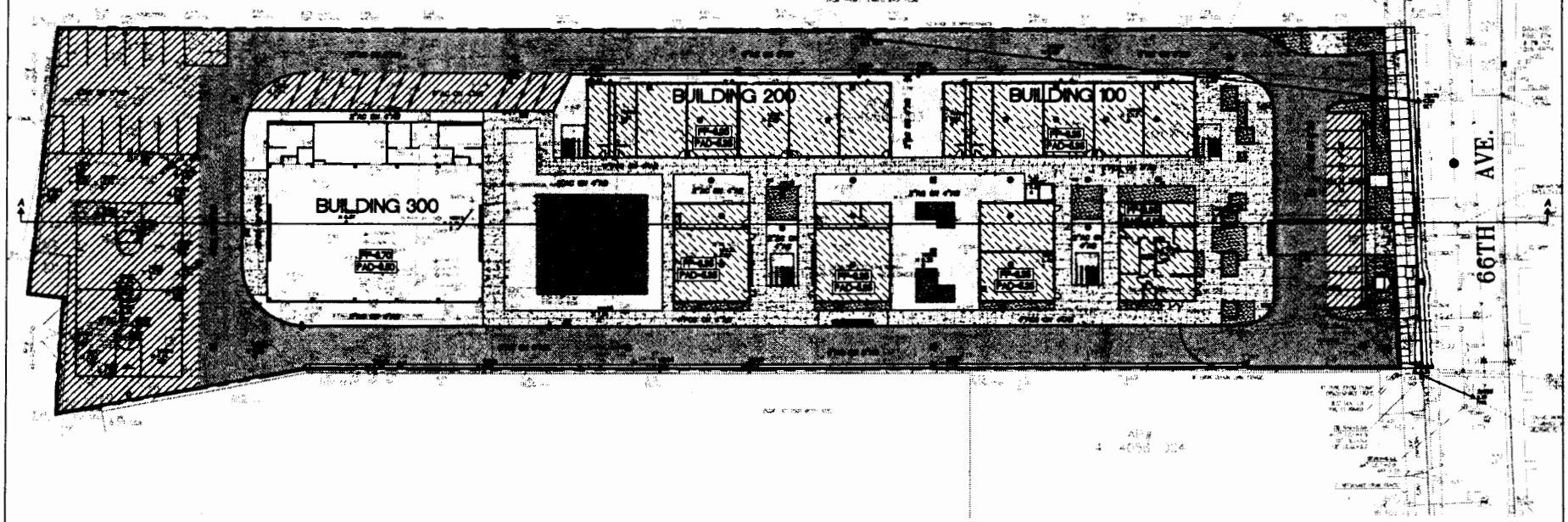
BENCHMARK: THE CITY OF OAKLAND BENCHMARK (3878 (CITY OF OAKLAND DATUM) WAS USED FOR THIS SURVEY. IT IS A CUT SQUARE LOCATED AT THE TOP OF CURB AT THE MID POINT OF THE SOUTHERLY RETURN OF THE INTERSECTION OF 66TH AVENUE AND LUCILLE STREET. ELEVATION=10.58'. ADD 5.71' TO THE ELEVATIONS SHOWN IN THIS SURVEY TO CONVERT THE DATUM TO NAVD 88 VERTICAL DATUM.

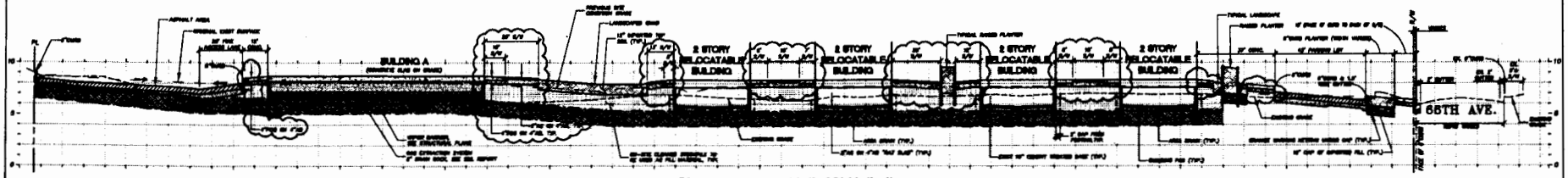
## GRADING & PAVING LEGEND

## GENERAL NOTES

ALL MODULAR BUILDING FOUNDATIONS AND VENT WELLS SHALL BE CONSTRUCTED ACCORDING TO THE STANDARD PLANS, AND SPECIFICATIONS OF THE BUILDING MANUFACTURER.

OFF-SITE ONLY




SECTION A-A H: 1"=20' V: 1"=4'

K2A ARCHITECTURE + INTERIORS

Client
College for Certain, LLC

Project Name
Aspire 66th Ave

1009 66th Ave.
Oakland, CA 94621

Consultants

Sheet Name
PAVING PLAN

Approval Stamp

Revisions
FOR EPA REVIEW
03-23-2011

Sheet Information
Drawing Scale: 1"=20'
Drawn By: VQ/AM

Project Information
Date: 09/28/2010
Status: Inc.1 Permit Sub.
Project Number: 1006

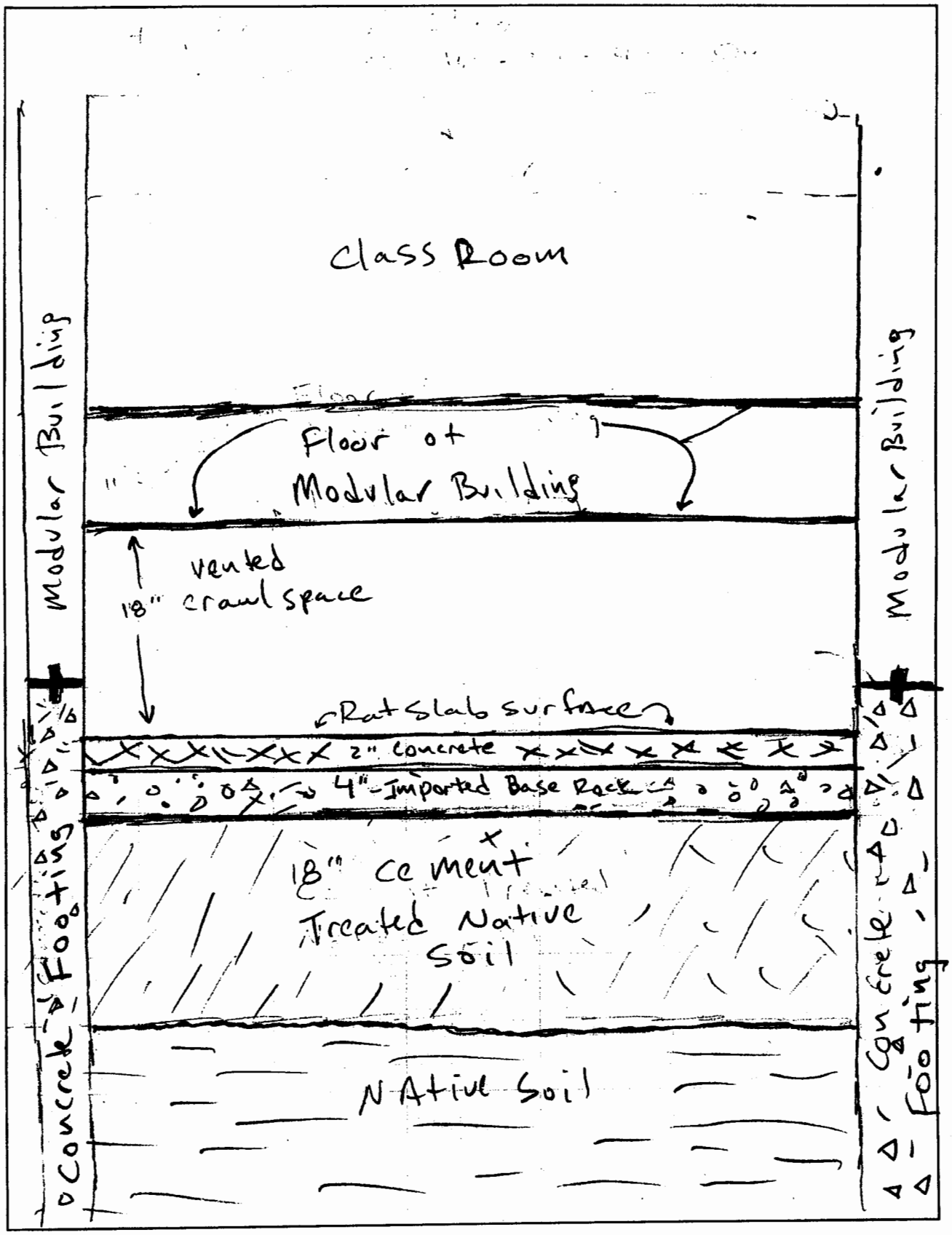
Sheet
1-C3.0

ARCADIS

SUBJECT: Aspire - TSCA CAP
Rat Slab Design
JOB NO: For Modular Buildings

BY: RDNG DATE: 3/31/
CHKD: DATE:
Figure 3

PAGE 1
SHEET 1/1




AGM Form 30 12-01

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION IX**
**75 Hawthorne Street**
**San Francisco, CA 94105**

Via U.S. Postal Service and Electronic Mail

June 16, 2011

Mr. Mike Barr
College for Certain, LLC - Aspire Public Schools
Chief Financial Officer
1001 22nd Avenue, Suite 100
Oakland, CA 94606

**Re: Aspire Public School, 1009 66th Avenue, Oakland, California – USEPA November 13, 2009 Approval of Polychlorinated Biphenyls' Cleanup Notification Under Toxic Substances Control Act – New Request for Additional Cap Modification**

Dear Mr. Barr:

This letter responds to Ron Goloubow's (Arcadis) April 25, 2011 letter[1] requesting on behalf of College for Certain, LLC additional modifications to the cap for soils contaminated with polychlorinated biphenyls (PCBs) required under the Toxic Substances Control Act (TSCA) regulations in 40 CFR 761.61(a)(7). On November 13, 2009, the U.S. Environmental Protection Agency, Region 9 (USEPA) approved with conditions the October 23, 2009 *"Toxic Substances Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California"* (Notification) prepared by Arcadis for Aspire Public Schools. That approval under 40 CFR 761.61(a) (self-implementing PCB cleanup) requires a cap be constructed at the entire Aspire site consistent with the requirements in 40 CFR 761.61(a)(7) for a concrete cap. Such a cap is required to be 6 inches thick.

In the attached letter, Arcadis is proposing an alternate cap design for the entire site-wide cap and excluding those areas of the cap where rat slabs will be constructed for the school's modular buildings. USEPA's April 5, 2011 approved the rat slab design that Arcadis had proposed in March 2011 and such design also modified the site-wide cap. The rat slab is a portion of the site-wide cap that USEPA required in its November 13, 2009 conditional approval of the October 23, 2009 Notification for the Aspire school site.

The additional cap modifications proposed in the attached Arcadis' April 25, 2011 letter and described in Figure 2 (Proposed Pavement Plan) of that letter differ from the cap requirements in 40

[1] Letter from Ron Goloubow (Arcadis) dated April 25, 2011 (Subject: "Proposed Toxic Substances Control (TSCA) Cap for Pavement Areas – Former Pacific Motors Facility, 1009 66th Avenue, Oakland, California") to Carmen Santos (USEPA Region 9).

CFR 761.61(a)(7) and include landscape areas. Figure 2 also describes the soils that will be used to construct the proposed landscape areas; and those areas were not a feature of the original site-wide cap proposed in the October 2009 Notification consistent with the cap requirements in 40 CFR 761.61(a)(7).

We are approving the proposed design for the site-wide cap (excluding the already approved design for the rat slab areas) and landscape areas described in the attached Arcadis' letter under the TSCA regulations in 40 CFR 761.61(c) (risk-based cleanup option) with the conditions established below. This approval modifies the site-wide cap (excluding the rat slabs) required in Condition 8 of USEPA's November 13, 2009 conditional approval letter.

**Conditions of Approval for Additional Site-Wide Cap Modifications**

1. **Imported Soil for Use at the Aspire Site.** Within 15 days after the date of this approval, please submit a summary of the sampling approach that Arcadis will use to collect samples of imported soils planned to be used at the Aspire site in the landscape areas and possibly at other areas of the site. This summary should also be submitted to the Alameda County Department of Environmental Health (ACDEH). The California Department of Toxic Substances Control (DTSC) *"Information Advisory Clean Imported Fill Material,"* dated October 2001 or latest revision should be used as guidance in developing the required summary. PCBs in the imported soil must be below the site cleanup level of 0.13 mg/kg total PCBs as Aroclors. The levels of non-PCB contaminants must be below the criteria referenced in the Advisory as modified by recent criteria updates. Discrete soil samples must be collected instead of composite samples.

   Within 10 days after Arcadis' receipt of the laboratory analytical results for the imported soil samples, please submit the laboratory analysis results to USEPA for review before imported soils are placed in the landscape areas designated in Figure 2 of the attached Arcadis' letter. This data must also be provided to ACDEH.

2. **Proposed Landscape Areas.** As described in the attached Arcadis' letter, the proposed landscape areas will consist of an 18-inch layer of cement-treated site soils (bottom layer), a 10-inch soil layer (middle layer) from soils excavated at the site during trenching, and a 12-inch layer (top layer) of imported soils. According to Arcadis, the bottom soil layer contains PCBs at concentrations below the site-specific cleanup level of 0.13 total PCBs as Aroclors. The 10-inch native soil layer proposed to be added above the 18-inch cement-treated soil layer must be replaced with imported soils that have been tested as required in Condition 1 above. This requirement is based on the fact that soils derived from trench excavations at the site that have not been tested for PCBs and other non-PCB contaminants are proposed for use in the 10-inch soil layer for the landscape areas. Edible plants, fruits, and vegetables should not be planted in the proposed landscape areas.

3. **Notification to Alameda County Department of Environmental Health (ACDEH).** The ACDEH must be notified of the proposed changes to the site-wide cap and inclusion of landscape areas in the cap design given the County's regulatory involvement with the Aspire site.

4. **Modified Site-Wide Cap.** Approval of the modified site-wide cap is only in context to the ability of such cap to prevent human and ecological exposures to PCB levels remaining at the site consistent with the cap requirements in USEPA's November 13, 2009 letter approving the Notification and the TSCA regulations. This approval does not cover structural issues related to the ability of the cap to properly support any estimated load(s) used in developing the cap design.

This approval does not modify Condition 9 in USEPA's November 13, 2009 letter conditionally approving Aspire's Notification. Condition 9 requires maintenance and repair of the cap in perpetuity and the requirements in that Condition are equivalent and consistent with the requirements in 40 CFR 761.61(a)(8).

We look forward to being of assistance to College for Certain, LLC during implementation of the work remaining in the Notification as modified by the conditions of approval; and to the construction of the site-wide cap as modified by the conditions of approval herein and in USEPA's April 5, 2011 approval letter. Please call Carmen Santos of my staff at 415.972.3360 if you have any questions concerning this letter.

Sincerely,

for Jeff Scott, Director
Waste Management Division

Enclosures (1)

Cc: Ron Goloubow, Arcadis
Michael Rueda, Pacific Charter School Development
Paresh Khatri, Alameda County Environmental Health
Arlene Kabei, USEPA R9
Steve Armann, USEPA R9
Carmen Santos, USEPA R9

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**www.arcadis-us.com**

Ms. Carmen Santos
U.S. Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

*sent via email only*

Environmental

Subject:
Proposed Toxic Substance Control Act (TSCA) Cap for Pavement Areas – Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California

Date:
April 25, 2011

Contact:
Ron Goloubow

Phone:
510.596.9550

E-mail:
ron.goloubow@arcadis-us.com

Our ref:
EM009155.0010.00001

Dear Ms. Santos:

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this letter to provide the revised details regarding the design of the Toxic Substance Control Act (TSCA) Cap for pavement and landscaped areas to be installed at 1009 66th Avenue in Oakland, California ("the Site"; Figures 1, and 2). The purpose of the cap is to prevent human and ecological exposure to any soil that may contain polychlorinated biphenyls (PCBs) at concentrations greater than the site specific clean-up goal of 0.135 milligrams per kilogram. As we have discussed, PCB-affected soil that might remain at the Site would likely be located within the interval of the cement treated soil. Depended upon the pavement and landscaping design provided below, that soil would be covered by a minimum of 6 to 13 inches of cap material (see pavement details on Figure 2).

**Proposed Pavement Design**

The details regarding the proposed pavement design for the Site is illustrated on Figure 2. As illustrated there are six different designs for pavement thicknesses depended upon the specific traffic - Site use in the area.

The proposed TSCA Cap designs will be comprised as follows (from the bottom up to the ground surface):

**Trash Enclosure Area**

- Native soil
- 18 - Inches of cement treated native soil
- 6 - Inches of imported aggregate base rock and
- 6- Inches of Portland cement concrete

**Pedestrian Walkway Areas - Concrete**

- Native soil
- 18 - Inches of cement treated native soil
- 4- Inches of imported aggregate base rock and
- 4- Inches of Portland cement concrete

**Vehicle Traffic Areas**

- Native soil
- 18 - Inches of cement treated native soil
- 10- Inches of imported aggregate base rock and
- 3- Inches of asphalt concrete

**Parking Areas**

- Native soil
- 18 - Inches of cement treated native soil
- 8- Inches of imported aggregate base rock and
- 2.5- Inches of asphalt concrete

**Pedestrian Walkway Areas - Asphalt**

- Native soil
- 18 - Inches of cement treated native soil
- 4- Inches of imported aggregate base rock and
- 2- Inches of asphalt concrete

**Landscaped Areas**

- Native soil
- 18 - Inches of cement treated native soil
- 10- Inches of native soil
- 12- Inches of imported top soil

## Closing

Blackwell Construction (on behalf of CFC) is in the process of installing the modular (re-locatable) buildings. The next phase of the construction project at the Site will be to install the "hard-scape" that will include the asphalt and concrete pavement area described above.

ARCADIS will contact representatives of U.S. EPA on Monday, May 2, 2011 to determine if the design provided in this letter is acceptable. We at ARCADIS appreciate working with you and your team and look forward to bringing this project to closure with the U.S. EPA in the near future.

Sincerely,

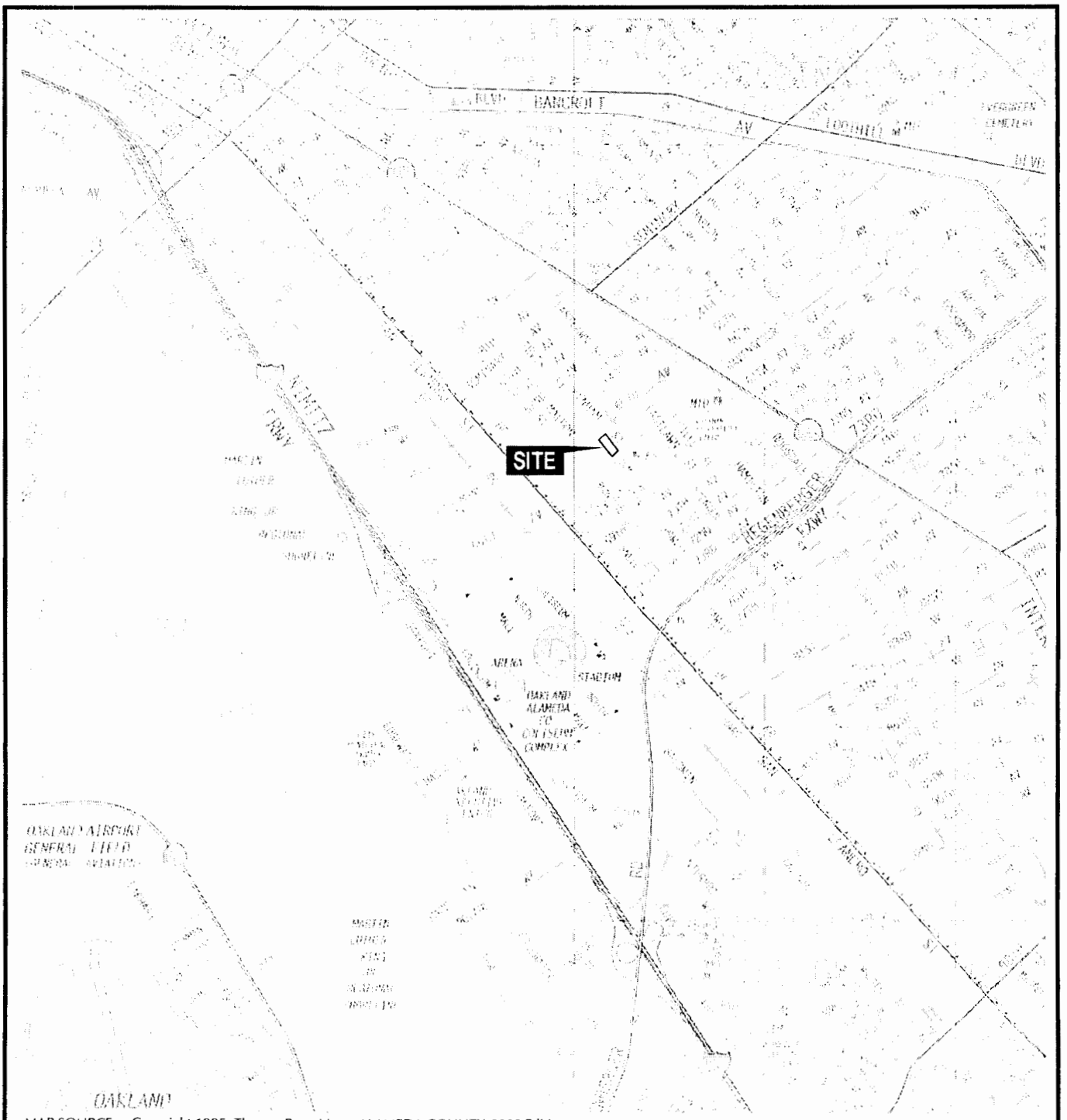
ARCADIS U.S., Inc.

Ron Goloubow, P.G.
Principal Geologist

Copies:
Mike Rueda – Pacific Charter Schools
Brad Kettle – Blackwell Construction

Enclosures:

Figure 1 – Site Vicinity Map
Figure 2 – Proposed Pavement Plan




MAP SOURCE: Copyright 1995, Thomas Bros. Map ALAMEDA COUNTY 2002 Edition

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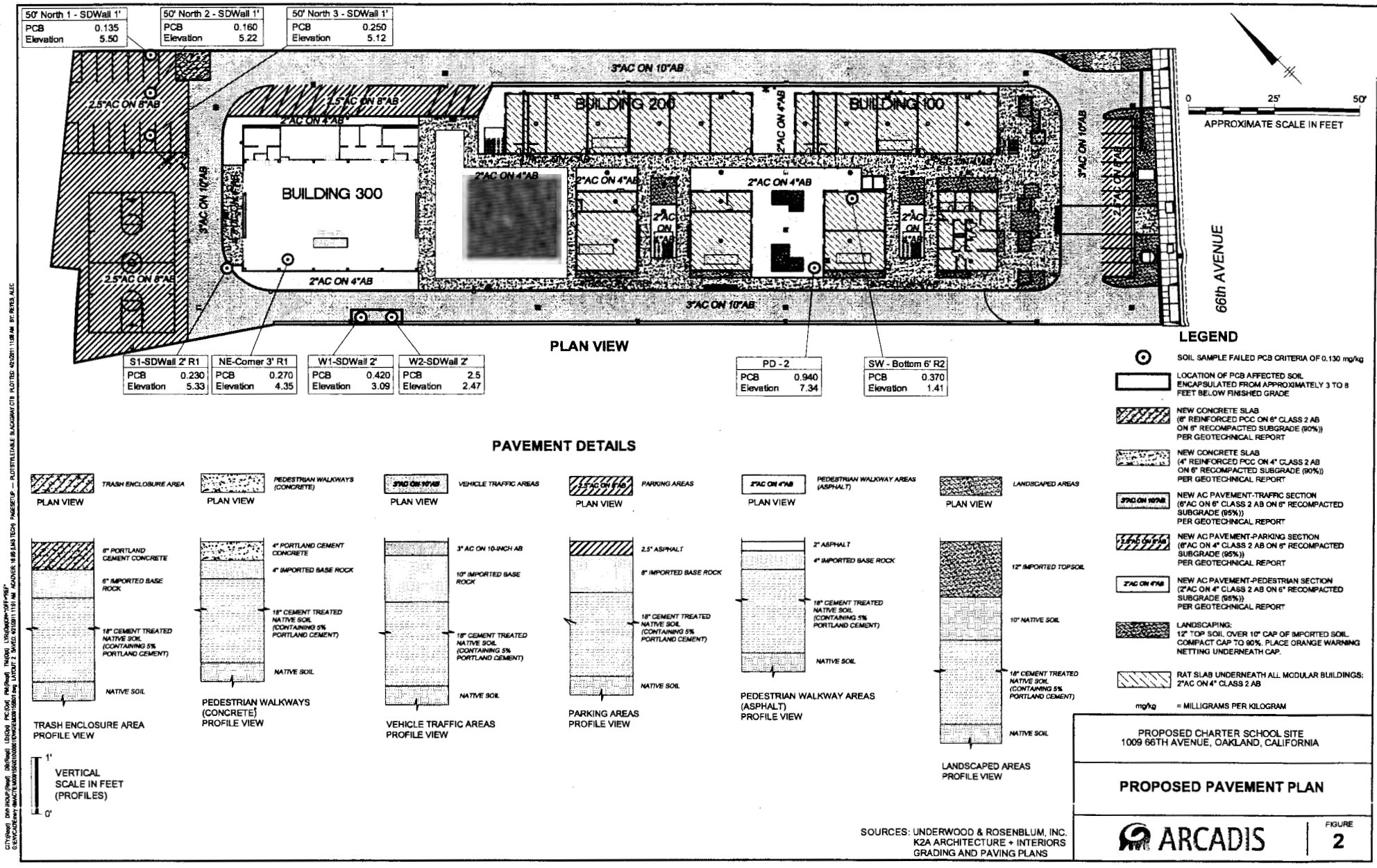
1009 66TH AVENUE, OAKLAND, CALIFORNIA

**SITE VICINITY MAP**

ARCADIS

FIGURE 1

DESIGN\003\091155\Figure 1 Site Vicinity - 003-091155.cdr


50' North 1 - SDWall 1'
PCB 0.135
Elevation 5.50
50' North 2 - SDWall 1'
PCB 0.160
Elevation 5.22
50' North 3 - SDWall 1'
PCB 0.250
Elevation 5.12
3"AC ON 10"AB
2.5"AC ON 8"AB
2.5"AC ON 8"AB
2.5"AC ON 8"AB
2"AC ON 4"AB
BUILDING 300
2"AC ON 4"AB
3"AC ON 10"AB
2"AC ON 4"AB
BUILDING 200
2"AC ON 4"AB
2"AC ON 4"AB
2"AC ON 4"AB
2"AC ON 4"AB
2"AC ON 4"AB
BUILDING 100
2"AC ON 4"AB
3"AC ON 10"AB
2"AC ON 4"AB
3"AC ON 10"AB
66th AVENUE
0 25' 50'
APPROXIMATE SCALE IN FEET
S1-SDWall 2' R1
PCB 0.230
Elevation 5.33
NE-Corner 3' R1
PCB 0.270
Elevation 4.35
W1-SDWall 2'
PCB 0.420
Elevation 3.09
W2-SDWall 2'
PCB 2.5
Elevation 2.47
PD - 2
PCB 0.940
Elevation 7.34
SW - Bottom 6' R2
PCB 0.370
Elevation 1.41
PLAN VIEW
PAVEMENT DETAILS
TRASH ENCLOSURE AREA
PLAN VIEW
PEDESTRIAN WALKWAYS (CONCRETE)
PLAN VIEW
VEHICLE TRAFFIC AREAS
PLAN VIEW
PARKING AREAS
PLAN VIEW
PEDESTRIAN WALKWAY AREAS (ASPHALT)
PLAN VIEW
LANDSCAPED AREAS
PLAN VIEW
6" PORTLAND CEMENT CONCRETE
6" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 5% PORTLAND CEMENT)
NATIVE SOIL
TRASH ENCLOSURE AREA PROFILE VIEW
4" PORTLAND CEMENT CONCRETE
4" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 5% PORTLAND CEMENT)
NATIVE SOIL
PEDESTRIAN WALKWAYS (CONCRETE) PROFILE VIEW
3" AC ON 10-INCH AB
10" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 5% PORTLAND CEMENT)
NATIVE SOIL
VEHICLE TRAFFIC AREAS PROFILE VIEW
2.5" ASPHALT
6" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 5% PORTLAND CEMENT)
NATIVE SOIL
PARKING AREAS PROFILE VIEW
2" ASPHALT
4" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 5% PORTLAND CEMENT)
NATIVE SOIL
PEDESTRIAN WALKWAY AREAS (ASPHALT) PROFILE VIEW
12" IMPORTED TOPSOIL
10" NATIVE SOIL
18" CEMENT TREATED NATIVE SOIL (CONTAINING 5% PORTLAND CEMENT)
NATIVE SOIL
LANDSCAPED AREAS PROFILE VIEW
1'
0'
VERTICAL SCALE IN FEET (PROFILES)
LEGEND
SOIL SAMPLE FAILED PCB CRITERIA OF 0.130 mg/kg
LOCATION OF PCB AFFECTED SOIL ENCAPSULATED FROM APPROXIMATELY 3 TO 8 FEET BELOW FINISHED GRADE
NEW CONCRETE SLAB (6" REINFORCED PCC ON 6" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
NEW CONCRETE SLAB (4" REINFORCED PCC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
NEW AC PAVEMENT-TRAFFIC SECTION (6"AC ON 6" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
NEW AC PAVEMENT-PARKING SECTION (6"AC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
NEW AC PAVEMENT-PEDESTRIAN SECTION (2"AC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
LANDSCAPING: 12" TOP SOIL OVER 10" CAP OF IMPORTED SOIL. COMPACT CAP TO 90%. PLACE ORANGE WARNING NETTING UNDERNEATH CAP.
RAT SLAB UNDERNEATH ALL MODULAR BUILDINGS: 2"AC ON 4" CLASS 2 AB
mg/kg = MILLIGRAMS PER KILOGRAM
SOURCES: UNDERWOOD & ROSENBLUM, INC.
K2A ARCHITECTURE + INTERIORS
GRADING AND PAVING PLANS
PROPOSED CHARTER SCHOOL SITE
1009 66TH AVENUE, OAKLAND, CALIFORNIA
PROPOSED PAVEMENT PLAN
ARCADIS
FIGURE
2

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION IX**
**75 Hawthorne Street**
**San Francisco, CA 94105**

Via U.S. Postal Service and Electronic Mail

June 16, 2011

Mr. Mike Barr
College for Certain, LLC - Aspire Public Schools
Chief Financial Officer
1001 22nd Avenue, Suite 100
Oakland, CA 94606

**Re: Aspire Public School, 1009 66th Avenue, Oakland, California – USEPA November 13, 2009 Approval of Polychlorinated Biphenyls' Cleanup Notification Under Toxic Substances Control Act – New Request for Additional Cap Modification**

Dear Mr. Barr:

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In the attached letter, Arcadis is proposing an alternate cap design for the entire site-wide cap and excluding those areas of the cap where rat slabs will be constructed for the school's modular buildings. USEPA's April 5, 2011 approved the rat slab design that Arcadis had proposed in March 2011 and such design also modified the site-wide cap. The rat slab is a portion of the site-wide cap that USEPA required in its November 13, 2009 conditional approval of the October 23, 2009 Notification for the Aspire school site.

The additional cap modifications proposed in the attached Arcadis' April 25, 2011 letter and described in Figure 2 (Proposed Pavement Plan) of that letter differ from the cap requirements in 40

[1] Letter from Ron Goloubow (Arcadis) dated April 25, 2011 (Subject: "Proposed Toxic Substances Control (TSCA) Cap for Pavement Areas – Former Pacific Motors Facility, 1009 66th Avenue, Oakland, California") to Carmen Santos (USEPA Region 9).

ARCADIS

*Infrastructure, environment, buildings*

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www.arcadis-us.com

Ms. Carmen Santos
U.S. Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

*sent via email only*

Environmental

Subject:
Proposed Toxic Substance Control Act (TSCA) Cap for Pavement Areas – Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California

Date:
April 25, 2011

Contact:
Ron Goloubow

Phone:
510.596.9550

E-mail:
ron.goloubow@arcadis-us.com

Our ref:
EM009155.0010.00001

Dear Ms. Santos:

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this letter to provide the revised details regarding the design of the Toxic Substance Control Act (TSCA) Cap for pavement and landscaped areas to be installed at 1009 66th Avenue in Oakland, California ("the Site"; Figures 1, and 2). The purpose of the cap is to prevent human and ecological exposure to any soil that may contain polychlorinated biphenyls (PCBs) at concentrations greater than the site specific clean-up goal of 0.135 milligrams per kilogram. As we have discussed, PCB-affected soil that might remain at the Site would likely be located within the interval of the cement treated soil. Depended upon the pavement and landscaping design provided below, that soil would be covered by a minimum of 6 to 13 inches of cap material (see pavement details on Figure 2).

**Proposed Pavement Design**

The details regarding the proposed pavement design for the Site is illustrated on Figure 2. As illustrated there are six different designs for pavement thicknesses depended upon the specific traffic - Site use in the area.

The proposed TSCA Cap designs will be comprised as follows (from the bottom up to the ground surface):

**Trash Enclosure Area**

- Native soil
- 18 - Inches of cement treated native soil
- 6 - Inches of imported aggregate base rock and
- 6- Inches of Portland cement concrete

**Pedestrian Walkway Areas - Concrete**

- Native soil
- 18 - Inches of cement treated native soil
- 4- Inches of imported aggregate base rock and
- 4- Inches of Portland cement concrete

**Vehicle Traffic Areas**

- Native soil
- 18 - Inches of cement treated native soil
- 10- Inches of imported aggregate base rock and
- 3- Inches of asphalt concrete

**Parking Areas**

- Native soil
- 18 - Inches of cement treated native soil
- 8- Inches of imported aggregate base rock and
- 2.5- Inches of asphalt concrete

**Pedestrian Walkway Areas - Asphalt**

- Native soil
- 18 - Inches of cement treated native soil
- 4- Inches of imported aggregate base rock and
- 2- Inches of asphalt concrete

**Landscaped Areas**

- Native soil
- 18 - Inches of cement treated native soil
- 10- Inches of native soil
- 12- Inches of imported top soil

## Closing

Blackwell Construction (on behalf of CFC) is in the process of installing the modular (re-locatable) buildings. The next phase of the construction project at the Site will be to install the "hard-scape" that will include the asphalt and concrete pavement area described above.

ARCADIS will contact representatives of U.S. EPA on Monday, May 2, 2011 to determine if the design provided in this letter is acceptable. We at ARCADIS appreciate working with you and your team and look forward to bringing this project to closure with the U.S. EPA in the near future.

Sincerely,

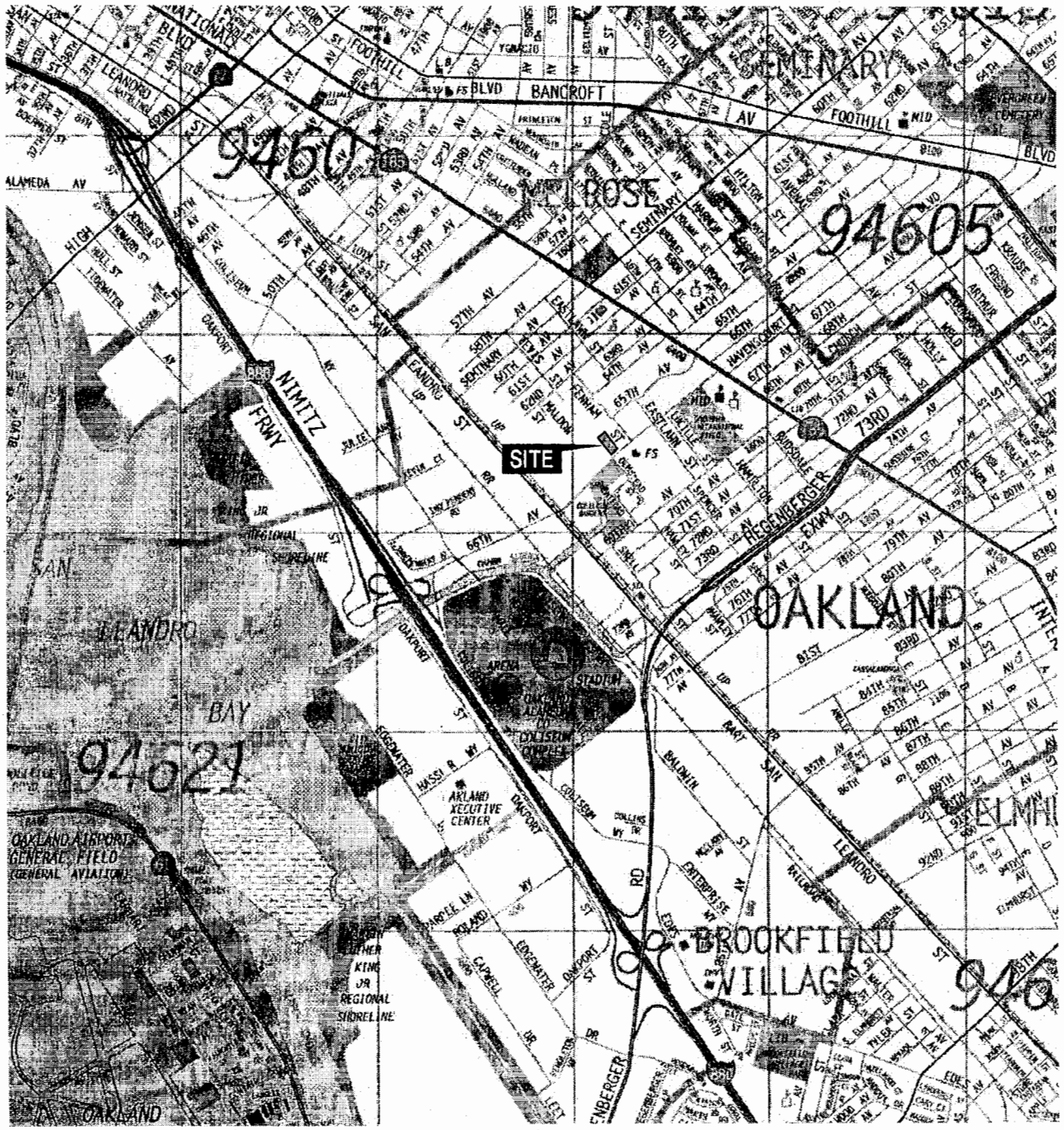
ARCADIS U.S., Inc.

Ron Goloubow, P.G.
Principal Geologist

Copies:
Mike Rueda – Pacific Charter Schools
Brad Kettle – Blackwell Construction

Enclosures:

Figure 1 – Site Vicinity Map
Figure 2 – Proposed Pavement Plan




MAP SOURCE: Copyright 1995, Thomas Bros. Map ALAMEDA COUNTY 2002 Edition

0 2,000 4,000 FEET

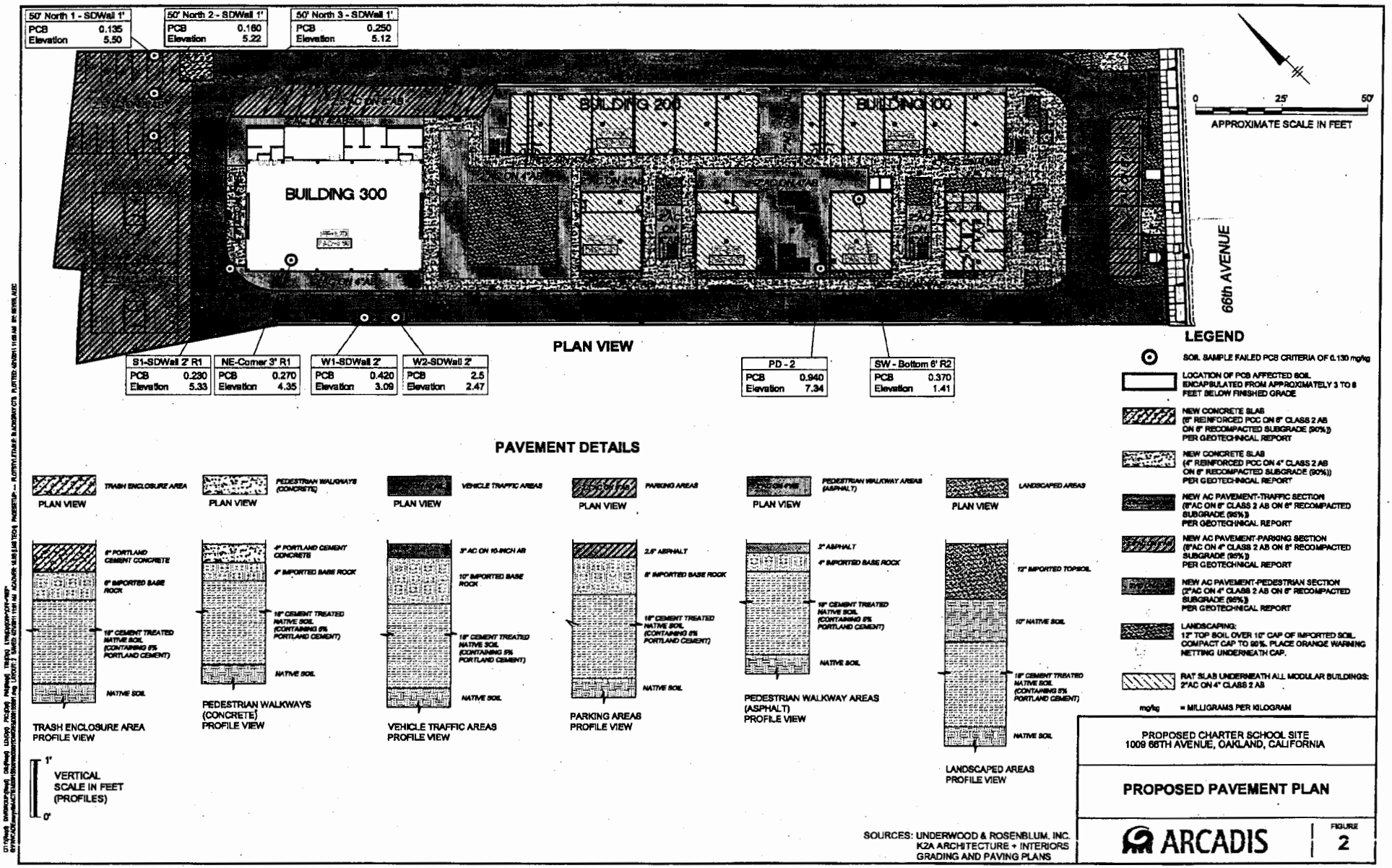
1009 66TH AVENUE, OAKLAND, CALIFORNIA

**SITE VICINITY MAP**

ARCADIS

FIGURE 1

DESIGN\003\09155\Figure 1 Site Vicinity - 003-09155.cdr


50' North 1 - SDWall 1'
PCB 0.135
Elevation 5.50
50' North 2 - SDWall 1'
PCB 0.160
Elevation 5.22
50' North 3 - SDWall 1'
PCB 0.250
Elevation 5.12
BUILDING 300
BUILDING 200
BUILDING 100
0 25' 50'
APPROXIMATE SCALE IN FEET
66th AVENUE
PLAN VIEW
S1-SDWall 2' R1
PCB 0.230
Elevation 5.33
NE-Corner 3' R1
PCB 0.270
Elevation 4.35
W1-SDWall 2'
PCB 0.420
Elevation 3.09
W2-SDWall 2'
PCB 2.5
Elevation 2.47
PD - 2
PCB 0.940
Elevation 7.34
SW - Bottom 6' R2
PCB 0.370
Elevation 1.41
PAVEMENT DETAILS
TRASH ENCLOSURE AREA
PLAN VIEW
PEDESTRIAN WALKWAYS (CONCRETE)
PLAN VIEW
VEHICLE TRAFFIC AREAS
PLAN VIEW
PARKING AREAS
PLAN VIEW
PEDESTRIAN WALKWAY AREAS (ASPHALT)
PLAN VIEW
LANDSCAPED AREAS
PLAN VIEW
6" PORTLAND CEMENT CONCRETE
6" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 6% PORTLAND CEMENT)
NATIVE SOIL
TRASH ENCLOSURE AREA PROFILE VIEW
4" PORTLAND CEMENT CONCRETE
4" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 6% PORTLAND CEMENT)
NATIVE SOIL
PEDESTRIAN WALKWAYS (CONCRETE) PROFILE VIEW
3" AC ON 10-INCH AB
10" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 5% PORTLAND CEMENT)
NATIVE SOIL
VEHICLE TRAFFIC AREAS PROFILE VIEW
2.5" ASPHALT
8" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 6% PORTLAND CEMENT)
NATIVE SOIL
PARKING AREAS PROFILE VIEW
2" ASPHALT
4" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 6% PORTLAND CEMENT)
NATIVE SOIL
PEDESTRIAN WALKWAY AREAS (ASPHALT) PROFILE VIEW
12" IMPORTED TOPSOIL
10" NATIVE SOIL
18" CEMENT TREATED NATIVE SOIL (CONTAINING 5% PORTLAND CEMENT)
NATIVE SOIL
LANDSCAPED AREAS PROFILE VIEW
1'
VERTICAL SCALE IN FEET (PROFILES)
0'
LEGEND
SOIL SAMPLE FAILED PCB CRITERIA OF 0.130 mg/kg
LOCATION OF PCB AFFECTED SOIL ENCAPSULATED FROM APPROXIMATELY 3 TO 8 FEET BELOW FINISHED GRADE
NEW CONCRETE SLAB (6" REINFORCED PCC ON 6" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
NEW CONCRETE SLAB (4" REINFORCED PCC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
NEW AC PAVEMENT-TRAFFIC SECTION (8"AC ON 6" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
NEW AC PAVEMENT-PARKING SECTION (6"AC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
NEW AC PAVEMENT-PEDESTRIAN SECTION (2"AC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
LANDSCAPING: 12" TOP SOIL OVER 10" CAP OF IMPORTED SOIL. COMPACT CAP TO 90%. PLACE ORANGE WARNING NETTING UNDERNEATH CAP.
RAT SLAB UNDERNEATH ALL MODULAR BUILDINGS: 2"AC ON 4" CLASS 2 AB
mg/kg = MILLIGRAMS PER KILOGRAM
SOURCES: UNDERWOOD & ROSENBLUM, INC.
K2A ARCHITECTURE + INTERIORS
GRADING AND PAVING PLANS
PROPOSED CHARTER SCHOOL SITE
1009 66TH AVENUE, OAKLAND, CALIFORNIA
PROPOSED PAVEMENT PLAN
ARCADIS
FIGURE
2

October 17, 2014

Ms. Carmen Santos
United States Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

Subject: CAP Modification Plan for the Former Pacific Electric Motors Site, 1009 66th Avenue, Oakland, California (Fuel Leak Case Number RO0000411)

Dear Ms. Santos:

Enclosed is the CAP Modification Plan for the Former Pacific Electric Motors Site 1009 66th Avenue, Oakland, California; Alameda County Environmental Health (ACDEH) Fuel Leak Case Number RO0000411 ("the Site"). This plan is provided for your review and approval in preparation for construction of the proposed Bldg. 300.

I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions or comments, please call Erica Kalve of ARCADIS at (415) 491-4530 extension 22, or me at (510) 434-5071.

Sincerely,

Tim Simon
Aspire Public Schools

Enclosure

ARCADIS

Infrastructure · Water · Environment · Buildings

Imagine the result

**College for Certain, LLC**

# Cap Modification Plan

Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California
(Fuel Leak Case Number RO0000411)

October 17, 2014

ARCADIS


Lucas Goldstein, PG-CA (7035); PE-CA, (C72455)
Principal Engineer

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Senior Geologist

PROFESSIONAL GEOLOGIST
ERICA KALVE
No.8425
STATE OF CALIFORNIA
Expires Sept. 30, 2015

Mandy Giampaolo
Project Engineer


**Cap Modification Plan**

Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California

Prepared for:
College for Certain, LLC


Prepared by:
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Our Ref.:
EM009155.0017

Date:
October 17, 2014

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## Appendices

A Soil Management Plan

B Building 300 Design Drawings

| | |
|---|---|
| ACEH | Alameda County Department of Environmental Health |
| ARCADIS | ARCADIS U.S., Inc. |
| bgs | below ground surface |
| BTEX | benzene, toluene, ethylbenzene, and xylenes |
| CAP | Corrective Action Plan |
| CFC | College for Certain, LLC |
| CMP | Cap Modification Plan |
| COPCs | constituents of potential concern |
| DTSC | Department of Toxic Substances Control |
| HASP | health and safety plan |
| mg/kg | milligram per kilogram |
| MTBE | methyl tertiary-butyl ether |
| O&M | Operation and Maintenance |
| PCBs | polychlorinated biphenyls |
| PEM | Former Pacific Electric Motors |
| RWQCB | Regional Water Quality Control Board |
| Site | former Pacific Electric Motors (PEM) Facility located at 1009 66th Avenue in Oakland, California |
| SMP | Soil Management Plan |
| SVE/AS | soil-vapor extraction/air sparging |
| TBA | tert-Butyl alcohol |
| TPH | total petroleum hydrocarbons |
| TPHg | total petroleum hydrocarbons as gasoline |
| TSCA | Toxic Substance Control Act |
| USEPA | United States Environmental Protection Agency |
| VIM | vapor intrusion mitigation |

## 1. Introduction

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this Cap Modification Plan (CMP) for the Former Pacific Electric Motors (PEM) Facility located at 1009 66th Avenue in Oakland, California ("the Site"; Figures 1 and 2). This CMP covers modifications to an existing land cover system that is in place to protect persons from direct exposure to polychlorinated biphenyls (PCBs) in soil. The scope of the CMP is in accordance with items discussed via conference call on June 25 and August 15, 2014 with representatives of the United States Environmental Protection Agency (USEPA), Alameda County Department of Environmental Health (ACEH), Aspire Public Schools (Aspire on behalf of CFC), and ARCADIS.

The purpose for the proposed scope of work included in this CMP is to accommodate construction of a new one-story gym and recreation building on the Site (Building 300, Figure 2). This CMP has been developed to mitigate any potential exposure to PCB-affected soil that is beneath the cap and to ensure that the cap is replaced in such a way as to maintain the integrity of the cap and mitigate potential exposure to affected soil.

A vapor barrier is being installed to address potential vapor intrusion concerns in the newly constructed building. Mitigation of potential exposure is also accomplished by implementing measures that prevent direct contact with affected soil during construction activities and long-term operation of the Site. A separate design report will be prepared that provides further information with respect to the design of the vapor mitigation system.

This CMP includes the following sections:

- Section 2 provides background information, including site history, the current site layout, environmental conditions, and soil management protocols.
- Section 3 provides an overview of the proposed Building 300 foundation plan and vapor barrier that will be part of the modified cap.
- Section 4 describes the pre-demolition soil sampling plan, which targets soil sampling in the areas where native soil will be exposed during construction activities.

- Section 5 describes the demolition limits required for construction of the modified cap.
- Section 6 describes the demolition and waste segregation plan that will be used to manage soil during construction activities.
- Section 7 describes how the proposed building plans will serve as the modified cap and the updated operation, maintenance, and monitoring activities that will be implemented. Agency notifications and the proposed implementation schedule are also provided in Section 7.
- Section 8 provides a summary of references cited throughout the CMP.

Elevations referenced in this report are measured in feet and refer to the City of Oakland Vertical Datum.

## 2. Background Information

### 2.1 Site Description

The Site is 2.51 acres and is located on the western side of 66th Avenue between East 14th Street (to the north) and San Leandro Street (to the south). The area around the Site is developed with a mixture of commercial, industrial, government, and multi-family residential buildings. The Site is bounded by a residential development to the north, Oakland Fire Department Station Number 2 to the east across 66th Avenue, Fruitvale Business Center to the south, and Northstar International Container Freight and Container Consolidation Services to the west.

The Site was redeveloped as the Aspire Golden State College Preparatory Academy, which serves grades 6 through 12 and has capacity for 570 students; the school opened in August 2011 (see Figure 2). The school occupies approximately 1.4 acres and consists of the following site features:

- Six two-story buildings (approximately 41,430 square feet total including 24 full-sized classrooms, 4 labs, 3 girls and 3 boys restrooms, and 4 staff restrooms)
- Asphalt-paved parking area with access via two driveways on 66th Avenue (one for ingress and one for egress)

- Asphalt-paved area for recreation
- Asphalt-paved and concrete pedestrian walkways
- Planter and landscaped areas

The structures formerly associated with Pacific Electric Motors (and infrastructure) on the Site have all been demolished.

As part of the redevelopment of the Site, the ground surface comprised of roadways, sidewalks, parking areas, buildings, and planter areas is serving as a cap to mitigate potential exposure to remaining PCBs containing soil at the Site.

### 2.2 Corrective Actions

The Revised Corrective Action Plan (Revised CAP) summarized the results of previous investigations, presented the site conceptual model, quantified the baseline risk of constituents of potential concern (COPCs), developed site-specific risk-based cleanup goals, evaluated potential remedies, and presented an implementation plan for the selected remedies (ARCADIS 2009a). The Revised CAP was approved by the ACEH in their letter to Aspire Charter Schools dated August 13, 2009 (ACEH 2009).

Several remedial actions were implemented in accordance with the Revised CAP including:

- Soil excavation and removal of approximately 8,662 tons of soil containing elevated concentrations of lead, arsenic, PCBs, benzene, and total petroleum hydrocarbons as gasoline (TPHg) (ARCADIS 2014a);
- Air injection and soil-vapor extraction to reduce concentrations of TPHg, benzene, toluene, ethylbenzene, and xylenes (BTEX), tert-Butyl alcohol (TBA), and methyl tertiary-butyl ether (MTBE) in groundwater, soil, and soil gas. Two phases of soil-vapor extraction/air sparging (SVE/AS) were implemented and an estimated 798 pounds of fuel vapors were recovered from the Site (ARCADIS 2014a).
- Areas of PCB-containing soil (and building materials) were remediated in accordance with the Revised CAP and Self-Implementing Cleanup Plan (ARCADIS 2009b; USEPA 2009a; ARCADIS 2009c, USEPA 2009b; ARCADIS 2014b).

not most recent report

The implementation of the Revised CAP was reported to ACEH (and USEPA) in the report titled, Soil Removal Action Completion Report, dated September 15, 2010 (ARCADIS 2010b). Removal of soil and building materials affected by PCBs was documented in a letter report that was prepared in accordance with the Toxic Substance Control Act (TSCA) and transmitted to USEPA on August 13, 2010 ("the TSCA Report"; ARCADIS 2010a).

In accordance with ACEH requirements, an additional vapor intrusion evaluation is currently being conducted to evaluate the potential for soil gas to affect indoor air quality at the Site. This includes an evaluation of soil gas and crawl space air quality in the vicinity of existing Building 200 and soil gas quality in the vicinity of proposed Building 300 (ARCADIS 2014e, 2014f). The vapor intrusion evaluation of the area associated with proposed Building 300 was recently submitted for ACEH review and approval for installation of a proposed vapor intrusion mitigation (VIM) system (described in Section 3).

### 2.3 Toxic Substance Control Act Cap

Remedial actions were highly effective in removing PCB affected soil (and building materials) from the Site. However, confirmation soil sampling indicates that areas of the Site still contain PCB-affected soil at concentrations greater than the cleanup criteria of 0.130 milligram per kilogram (mg/kg). The locations of the confirmation soil samples that contained PCB-affected soil at concentrations greater than the cleanup criteria are illustrated on Figure 2. In addition to the confirmation soil samples that failed the cleanup criteria, approximately 10 yards of soil that contained PCBs at concentrations greater than the cleanup criteria was encapsulated in the area of the Site where affected PCBs were already to remain in place (Figure 2). The encapsulated soil was wrapped in geotextile fabric and placed at a depth of approximately 3 to 8 feet below the surface of the pavement in this area of the Site.

As presented in the Soil Removal Action Completion Report (ARCADIS 2010b), the following procedures have been implemented at the Site to ensure that the potential exposure to the PCB-affected soil will be mitigated:

- Installation of a "TSCA cap" across the surface of the Site.
- Preparation of an operation and maintenance plan (O&M) Plan.
- Preparation of a deed notification.

The configuration of the TSCA cap was presented in a letter to the USEPA by ARCADIS dated April 25, 2011 (ARCADIS 2011a) and the configuration of the cap was approved by the USEPA in a letter dated June 16, 2011 (USEPA 2011a, 2011b). CFC installed the cap in accordance with the approved configuration. Details regarding this cap are provided in Figure 2 and include surface cover across the entire Site consisting of both hardscaped (i.e., roadways, sidewalks, parking areas, buildings) and landscaped /planter areas. The O&M Plan was finalized in May 2014 (ARCADIS 2014c), and the deed notification will be developed following completion of this CMP.

### 2.4 Cleanup Goals for Soil

Risk-based cleanup goals were developed for the Site with an emphasis on health protection by incorporating conservative assumptions in the risk-based calculations. Cleanup goals were calculated by algebraically transforming the standard human health risk assessment equations to solve for a concentration given a target cancer risk of 1 x 10-6 or Hazard Index of 1.

Recommended cleanup goals resulting from this process are presented below:

**Total Petroleum Hydrocarbons (TPH)**

- TPH as motor oil: 2,500 mg/kg
- TPH as diesel: 180 mg/kg

**Metals**

- arsenic: 7 mg/kg (site-specific background level)
- cadmium: 7.4 mg/kg
- chromium: 750 mg/kg
- cobalt: 80 mg/kg
- copper: 230 mg/kg
- lead: 80 mg/kg

- zinc: 600 mg/kg

**Organic Compounds**

- PCBs: 0.130 mg/kg

The analytical results for each of the constituents should be less than the cleanup goals summarized above or the final Environmental Screening Levels for shallow soil (less than 1 meter below ground surface) for commercial and industrial properties where the groundwater is not a potential source of drinking water (Table B-2, Regional Water Quality Control Board [RWQCB 2013]), with the exception of Arsenic. Arsenic concentrations should be less that the site-specific background concentration of 7 mg/kg (see discussion presented in Appendix B of the CAP [ARCADIS 2009a]).

### 2.5 Soil Management Plan

At the request of the USEPA and ACEH, ARCADIS prepared and submitted for approval a Soil Management Plan (SMP), dated May 16, 2014 (ARCADIS 2014d), for the Site, and included in Appendix A. The SMP outlined sampling and health and safety procedures to be implemented during future site modifications that could disturb site soil, such as the repair of a subsurface utility at the Site. Since the SMP has not yet been formally approved, relevant sections of the SMP have been incorporated into this CMP.

The purpose of the SMP is to communicate the presence of chemicals identified in soil at the Site so that appropriate safety measures can be implemented to protect persons doing invasive site work and to appropriately manage soils at the Site. The SMP provides general protocols for the proper management of soil encountered and/or disturbed during excavation, construction, utility work, site redevelopment, and other work that may encounter impacted soil at the Site. The protocols outlined in the SMP will be followed during the implementation of this CMP, as described in the following sections.

#### 2.5.1 Soil Management Strategy

Need to test before stock piling soils

Soil will be reused at the Site to the extent possible (only if soil does NOT contain contaminants of concern at concentrations greater than the cleanup criteria). Suspected contaminated soil (e.g., soil exhibiting discoloration, oily liquids, powders, or other substances, odors, or detections on field equipment) will be stockpiled and

tested. This soil will only be reused if it meets the remedial goals discussed in Section 2.4.

### 2.5.2 Requirements for Imported Fill

Is this consistent w DTSC guidance?

Soil that is imported to the Site for use as fill must be sampled prior to being brought on site. A four-point composite sample will be collected for every 500 cubic yards of fill material imported to the Site and submitted for the following analyses:

- Volatile organic compounds by USEPA Method 8260B (solvent extraction USEPA method 3540C)
- California Assessment Manual 17 metals by USEPA Method 6010B
- Semivolatile organic compounds by USEPA Method 8270
- PCBs by USEPA Method 8082A Soxhlet extraction, USEPA method 3540C
- Organochlorine pesticides by USEPA Method 8081
- TPH by USEPA Method 8015M

The analytical results for each of the constituents should be less than the cleanup goals provided in Section 2.4.

### 2.5.3 Stockpile Management

Why not place soil directly into containers that will remove it from the site.

Add signs to prevent persons from coming into contact

Potentially impacted soil generated from construction activities will be stockpiled on site. The stockpiles will likely be located at the northern portions of the Site but will depend on the location of the work. The stockpiles will be placed on, and covered with, polyethylene sheeting (tarps) to provide separation and prevent off-site soil migration due to wind and water erosion. In addition, a berm made of hay bales or another accepted material will be placed around each stockpile to capture any potential runoff from the stockpile. No stockpiled soils will be removed from the Site without Aspire's written permission.

prior to stockpiling, must spl soils in situ.

Dust control measures will be used during excavation/work activities such that no visible dust migration is observed. Typically, misting with water and the use of anchored tarps can be used to control dust emissions. Mitigation procedures to prevent

on the stockpiles.

wind erosion of an active stockpile will include applying sufficient water or other accepted material to keep the soil slightly damp, but not so much water to create runoff from oversaturation. Stockpiles will not be piled excessively high (less than approximately 20 feet above the ground surface) to further prevent airborne transport of stockpile material.

2.5.4 Soil Characterization and Off-Site Reuse/Disposal

Sampling in-situ not after excavation

Soils will be adequately sampled and characterized/profiled as presented below prior to disposal to an off-site and appropriately licensed facility. Prior to characterization, the receiving facility will be identified and acceptance criteria will be provided to Aspire and ARCADIS for review and approval. No soil samples will be collected and/or analyzed without prior written approval of Aspire.

Need to follow TSCA for PCBs.

Sample collection and analyses will be required prior to transporting the soil off site for disposal or reusing the soil on site. The samples will be collected using the protocol described in the Soil Sampling Plan for imported soil for landscaping, dated June 24, 2011 (ARCADIS 2011b). The proposed sampling will conform to the California Department of Toxic Substances Control (DTSC) Information Advisory – Clean Import Fill Material as follows:

- Up to 1,000 cubic yards – one sample per 250 cubic yards
- 1,000 to 5,000 cubic yards – four samples for the first 1,000 cubic yards plus one sample for each additional 500 cubic yards
- Greater than 5,000 cubic yards – 12 samples for the first 5,000 cubic yards plus one sample for each additional 1,000 cubic yards

Soils for removal and off-haul can be profiled either in-place or from the stockpile. Subsequent to permission by Aspire, all soils removed from the Site for disposal will be disposed of at a disposal facility approved by Aspire and that meets the regulatory and permitting requirements to accept the waste. All soil transportation and disposal documentation must be forwarded to Aspire upon completion of the disposal activities. All documentation regarding soil removal and disposal must be submitted to USEPA within 14 days after disposal.

## 3. Site Modifications

Site modifications include construction of a new gymnasium and recreation facility (Building 300) with associated utility connections, parking areas and pedestrian walkways. As shown on Figure 2, proposed Building 300 will be situated in-line with the existing structures at the Site, furthest from 66th Avenue in the northwest third of the Site. It will be positioned generally west of Building 200 in an area of the Site that is currently paved for parking and pedestrian use. The proposed building is approximately 9,300 square feet, and covers a rectangular footprint of about 104-foot by 89- foot oriented in a northwest-southeast direction. Drawings showing the proposed building construction are provided in Appendix B and include: proposed site demolition (Drawing C1), site grading and paving (Drawing C2), site plumbing (Drawing C3), site civil details (Drawing C4), and building foundation drawings (Drawings S2 and S3).

Existing grades within the proposed Building 300 footprint vary from El. 8.4 to 8.94. The proposed building area is partially surrounded by a concrete curb that has four inches of concrete on top of four inches of aggregate base rock. The remaining area in the vicinity of proposed Building 300 is currently paved with two to two and a half inches of asphalt on four to eight inches of aggregate base rock. An 18-inch thick layer of native soil treated with 5-percent Portland cement underlies the aggregate base rock as the bottom layer above untreated native soil. These layers comprise the existing cap in this area, which ranges in thickness from 24- to 31-inches. Profiles of the existing cap materials at the proposed Building 300 area are shown in Figure 2.

### 3.1 Foundation Building Plan

The building foundation will consist of a concrete slab on grade and shallow footings. The slab on grade consists of a 5-inch thick reinforced concrete slab covering an area of approximately 8,900 square foot. The elevation of the proposed top of slab varies from 8.52 in the gymnasium portion of the building to El. 8.70 throughout the remaining area. A 1-inch thick layer of sand (optional; sand layer may not be included in final construction) may be installed below the concrete slab and over the vapor collection. A 4-inch thick layer of washed aggregate rock will be installed below the vapor barrier system.

Foundation footings consist of a 6-foot-wide continuous footing along the building perimeter. An interior continuous footing, also 6 feet in width, will extend the width of the building and is positioned approximately 20 feet from and parallel to the proposed buildings northeast perimeter wall. Continuous footings will be founded at a depth of

approximately 18 inches below finished grade. Additional deep concrete footings will be installed in select locations along the perimeter of the exterior foundation for support of the building canopies. These canopy footings will be 4-feet square and founded at a depth of approximately 30-inches below finished grade. The limits of the proposed footing foundations are shown on Figure 3.

### 3.2 Vapor Intrusion Mitigation System

A soil vapor assessment was completed by ARCADIS on August 26, 2014 to assess the potential for vapor intrusion to occur into the proposed Building 300. Results and recommendations of the soil vapor assessment are presented in the report titled Soil Vapor Intrusion Assessment Report for Proposed Gymnasium, dated September 23, 2014 (ARCADIS 2014e). The report summarizes field activities and the results of the installation and sampling of five shallow vapor probes at the site as well as providing recommendations for the proposed gymnasium building to mitigate potential vapor intrusion.

To assess the vapor intrusion potential in the vicinity of the proposed gymnasium, five soil vapor probes were installed within the footprint of the proposed gymnasium. Soil gas concentrations were measured in each probe and screened against health based screening criteria. Results of the screening evaluation indicated that vapor intrusion mitigation for the proposed Building 300 is appropriate. A VIM system was recommended in the report to prevent subsurface vapors from contacting building occupants at concentrations associated with health concerns.

The VIM system will be comprised of a vapor barrier membrane and a passive sub-slab soil vapor depressurization system. Details of the system are shown on Figure 4. The system will be installed beneath the proposed building slab. It consists of installation of a fluid applied gas barrier (Geo-Seal ® system) beneath the 1-inch sand layer (optional; sand layer may not be included in final construction). A separate VIM system design report will be prepared that provides further information with respect to the design of the system and includes design drawings and specifications. It is included in this CMP because the vapor collection system is part of the revised cap for this portion of the Site.

A network of vapor collection trenches is included in the VIM system for the proposed building. A low profile, flexible vapor collection system (strip geocomposite by Vapor-Vent ™) will be placed along the alignment of each trench, in conjunction with the gas barrier layer. The vapor collection trenches will run in a generally north-south direction

within the building footprint, each extending between the northeast and southwest perimeter footings and spaced approximately 30 to 40 feet apart. Each Vapor-Vent ™ strip geocomposite will connect to a Schedule 40 riser pipe at two locations in the northeastern area of the building. The riser pipes will be incorporated into the building's plumbing chase and extend to the top of the building for venting above the roofline.

### 3.3 Site Utilities

Installation of the site utilities will require removal of cap materials. Currently proposed site utilities are shown on Drawing C3 of Attachment A and include connections to the site's existing storm drainage system (four lines) and fire service (one line). Installation of the utilities for sanitary and water services are anticipated; alignments will be determined after the locations of existing sanitary and water lines are determined.

## 4. Pre-Demolition Soil Sampling Plan

The purpose of the pre-demolition soil sampling plan is to assess soil quality within the area of the cap (canopy footings, site utilities) that will be modified down to native soil; specifically, to assess in advance of construction if soil that will be handled during construction activities can be reused on site. Analytical data collected from proposed soil borings will be used to manage soil that will be excavated during the construction of Building 300 in accordance with the SMP. ARCADIS will update the Site-specific health and safety plan (HASP) to identify the potential health and safety risks associated with the proposed scope of work. The pre-demolition soil sampling plan includes advancement of five soil borings, soil sample collection and laboratory analysis as described below.

5 borings

### 4.1 Soil Borings

ARCADIS will advance twelve soil borings using hand auger equipment to a total depth of between 2 and 3 feet below ground surface (bgs). Soil boring locations are shown on Figure 3. The proposed locations are positioned along the perimeter of the proposed building to collect data for excavation that will encounter native soils (i.e., canopy footings and site utilities). Native soils are expected to be encountered at a depth of about 26 inches bgs.

2 ft 2 in.

12 borings to 2-3 ft bgs.

+ native soils at 26 in bgs

### 4.2 Soil Sample Collection

what about 1 → 2.5 feet? why not sampling at that interval?

Twenty-four soil samples will be collected from twelve soil boring locations using hand auger sampling techniques. Soil samples will be collected at depths of approximately 0.5 to 1.0 feet bgs and 2.5 to 3.0 feet bgs at each location specifically in areas where the native soils will be disturbed during construction. Samples will be collected from both the cement treated native soil layer and native soils. One duplicate soil sample will be collected (2 samples at each interval for a total of 10 soil samples). The soil samples will be transferred into clean, laboratory-provided sample containers, labeled stored in an ice-chilled cooler, and transported under chain-of-custody protocol to the laboratory for analysis.

### 4.3 Laboratory Analyses

Soil samples will be submitted to a state-certified laboratory for the following analyses:

- TPHg by USEPA test method 8015, modified
- benzene, using USEPA test method 8260
- arsenic and lead by USEPA test method 6010B
- PCBs by USEPA test method 8082

TSCA only addressing PCBs.

In order for the soil to be re-used at the Site, the analytical results should be less than the site specific clean up goals listed in Section 2.4.

We are making no decision on reuse based on non-PCB contaminants. County involvement needed if PCBs below or at cleanup level

### 4.4 Reporting

ARCADIS will transmit the analytical results for these samples to the USEPA within 10 days of receiving the analytical results.

## 5. Demolition Plan

The demolition plan includes the disturbance or removal of the existing cap located at Building 300 (see Figure 3 and Drawing C1). In order to prepare the construction area, the asphalt and concrete surfaces proposed for removal will be saw cut and removed using earth moving equipment. The surface material (asphalt and concrete) will be segregated and managed separately than the subsurface material (aggregate base

asphalt + concrete will be cut out.

rock and soil). Management of removed surface and subsurface materials is described in the waste segregation plan. It is anticipated that the following quantities of cap materials will be removed as part of this CMP:

| Cap Material | Estimated Removal Quantity (cy) |
|---|---|
| Concrete | 20 to 23 |
| Asphalt | 74 to 66 |
| Aggregate Base | 114 to 126 |
| Cement Treated Soil | 240 to 265 |
| Native Soil | 7 to 10 |

In order to construct the proposed foundation, existing pavement will be demolished and portions of the underlying cap materials (aggregate base rock and cement treated native soils) will be removed. The limits of pavement demolition are shown on Figure 3. Excavation for the building slab and footings is anticipated to be limited to the extents of the concrete foundation (as shown on Figure 3) and not require over-excavation to accommodate formwork. The resulting excavation for slab and footing construction would penetrate the cap in specific areas, as follows:

- Slab: Based on existing grade within the proposed Building 300 footprint, it is estimated that a thickness of between 9 and 15 inches of the existing cap will be removed for construction of the concrete slab and underlying stone and sand layers. This includes two inches of asphalt and four inches of aggregate base rock (where present at depth), and a portion of the cement treated native soils. The removal of cement treated native soil varies across the proposed slab, depending upon the existing grade and proposed slab elevation. Within the gymnasium portion of the slab (depressed slab area) between 5 and 8 inches of cement treated native soil will be removed. In the remaining areas of the proposed building, it is estimated that 2 to 3 inches of cement treated native soil will be removed for slab construction.

- Between 15 and 17 inches in thickness of the cap will be removed to accommodate construction of the proposed perimeter and interior footings, as shown on Drawing S2. This includes additional removal of any remaining aggregate base rock and removal of up to 11 inches of treated soil.

9 – 15 in thickness of cap will be removed.

* 2 in asphalt
* 2 in aggregate base rock.
* portion of cement treated ~~soils~~ native soils.

- Approximately 30 inches of surface material will be removed to accommodate the deeper canopy footings. In these limited areas within the construction area, the cap and up to three inches of native soil will be removed. These areas are very limited in extent and are no more than 16 square feet each. In total, eight deep footings will be installed and up to 128 square feet of untreated native soil may be briefly exposed until footings are filled with concrete, as shown on Drawing S3.

For the areas beyond the proposed building footprint, the asphalt pavement and concrete pedestrian walkways will be removed to expose the existing aggregate base rock layer. Removal of the existing aggregate base rock layer may be required, depending upon existing grades, to accommodate installation of new concrete paving to the proposed design grade. If the design grade is lower in elevation than the existing grade, removal of the underlying aggregate base rock layer may be needed so that installation of the new concrete cap can be accomplished and not exceed the proposed design grade.

Installation of new site utilities will require excavation of the aggregate base rock layer and treated soil. There is the potential that these utility excavations will extend through the treated native soil layer and require removal of the native soil for installation of pipe and bedding materials. Proposed utility alignments are shown on Drawing C3 in Appendix B. Excavation widths for the utilities are anticipated to be 3 to 4 feet in width.

## 6. Waste Segregation and Disposal Plan

In accordance with the SMP, the segregated surface material (asphalt and concrete) will be transported to a local recycling center to be processed and recycled into re-usable construction material.

Subsurface materials that underlie the asphalt and concrete surface will be handled in accordance with the SMP and analytical results of the pre-demolition soil samples as specified in the pre-demolition soil sampling plan. Subsurface materials primarily contain a mixture of imported aggregate base rock and cement treated native soil (containing 5-percent Portland cement). It is anticipated that material at depths to 30 inches below surface grade will be removed within the proposed modified cap area. Some native soil will be removed during site activities, primarily where the deep footings will be installed, as shown in the profile on Figure 3. Material will be visually inspected for evidence of impacts and/or screened using a photoionization detector as applicable. Native soil will be stockpiled and characterized following the SMP action guidelines for screening soil (ARCADIS 2014d).

Must characterize before

Excavated soil will be reused at the Site to the extent possible (i.e. only if soil does not contain contaminants of concern at concentrations greater than the site specific cleanup criteria outlined above). Subsequent to permission by Aspire, soil removed from the Site for disposal will be transported to a facility approved by Aspire and that meets the regulatory and permitting requirements for disposal. All documentation regarding soil removal and disposal will be submitted to USEPA within 14 days after disposal.

Disposal consistent with most stringent disposal requirements for constituents in the waste

## 7. New Cap Plan

### 7.1 Description of Revised Cap

This cap modification plan incorporates the proposed Building 300 foundation and VIM system, and surrounding pavement areas into the existing cap. Components of the new cap are described in detail below, shown on supporting Figures 3 and 4, and on the design drawings in Appendix B.

The modifications to the cap system at the proposed building continue the use of hardscape materials (asphalt and concrete) as engineering controls for the Site. Within the building footprint, the existing asphalt hardscape will be replaced with a concrete slab Beyond the building footprint, the hardscape materials for pedestrian use will continue to be a mix of concrete and asphalt pavement. The existing planter areas will remain vegetated. These capping modifications will ensure potential exposure to the PCB-affected soil will continue to be mitigated.

Within the proposed building footprint, the new cap will consist of the building foundation elements as shown in Figure 3 and drawings S2 and S3 of Appendix B. The cap will include the following foundation elements:

- Approximate 8,900 square foot reinforced concrete slab on grade, 5-inches in thickness, and bearing on a 6-inch thick layer of sand and aggregate rock.
- 6-foot-wide footings around the building perimeter and beneath an interior wall positioned approximately 20 feet southwest of the proposed building's northeast wall.
- Total of eight deep foundations consisting of 4-feet square, 18-inch thick concrete footings.

Beneath the building's slab on grade, the new cap will also include the components of the VIM system as described in Section 3.2 above. The total thickness of the capping components is estimated to vary from 24 to 30 inches. A general profile of the capping system within the building footprint is shown on Figure 3.

Beyond the building footprint, the new cap will consist of 4-inch thick reinforced concrete pavement. It will extend from the exterior walls of the building to the limits of existing cap demolition. In general, the new cap will be integrated with the existing cap by concrete to concrete contact at either the edge of the existing curb or at the saw cut pavement face. The total thickness of the cap at the edges will be approximately 26-inches thick and will be comprised of treated soil, aggregate base rock, and concrete.

Drawing C4 in Appendix B provides general details related to paving for the proposed building site. Additional information pertaining to the connection of new and existing pavement materials follows:

- Where new concrete abuts the existing curb, the concrete will be placed directly against the curb and the curb will act as the formwork for the pavement section.
- For those areas where the new concrete abuts a saw cut concrete surface or an asphalt edge (i.e., eastern edge of Site), a fiber board (1/4-inch in thickness) will be installed between the two surfaces. The new concrete will be placed directly against the fiber board.
- Existing landscape planters are located along the eastern side of the proposed building area. Where new concrete pavement abuts the planters, a redwood header will be placed along the vegetated area and the new concrete placed against the redwood header.

### 7.2 Monitoring and Maintenance/Inspections

Following installation of the cap modifications, monitoring and maintenance of the new cap will be completed in accordance with the existing operations and maintenance plan for the Site. Procedures for monitoring and maintenance of the cap are provided in the report titled Operation and Maintenance (O&M) Plan for Cap Mitigation Measures dated May 16, 2014 (ARCADIS 2014c). The O&M Plan for the cap includes procedures for:

- Long-term operation, maintenance, monitoring (inspection), and repair of the engineering controls (i.e., the cap [including all of its components]) in perpetuity; and

- Management of soils containing PCBs and other contaminants at the Site.

Measures for operation and maintenance of the vapor collection system will be addressed in a separate plan.

### 7.3 Notifications and Schedule

The O&M Plan for the cap provided notification requirements for proposed modification and/or disturbances to the cap. In accordance with the O&M Plan, a work plan must be provided to the ACEH and USEAP for review and approval prior to commencing with the work. The USPEA and ACEH will be notified of a proposed change to the surface cap at least two weeks prior to the scheduled work.

This CMP serves as the required work plan for these proposed cap modifications. It will be submitted to the USEPA and ACEH for review and approval two weeks prior to schedule start of work.

The following implementation schedule is anticipated for this CMP:

- The CMP will be reviewed and approved by the USEPA as it is designed for protection from PCB affected soils.

- The VIM System design (which is incorporated in the CMP as it is related to the building foundation) will be reviewed and approved by the ACEH as it is designed for the protection from potential vapor intrusion of soil gas to indoor air.

- The building will be constructed following appropriate pre-construction soil characterization (as described in Section 4), and agency approval of the CMP and VIM System design.

In addition, notifications will be completed prior to the pre-demolition sampling activities. In accordance with the SMP, the persons indicated in the table below must be notified within 48 hours if subsurface disturbance is anticipated or if unexpected affected soil is encountered. Additionally, if soil is to be transported from the Site to an

appropriate landfill, the following contacts must be notified. These contacts will also be notified prior to implementation of the pre-demolition activities discussed in Section 4.

**Emergency Contacts**

| Contact | Telephone |
|---|---|
| Owner – Aspire Public Schools<br>Contact: Tim Simon, Project Manager | 510.434.5071 or<br>831.710.1865 |
| Alameda County Environmental Health<br>Contact: Jerry Wickham | 510.567.6791 |
| USEPA<br>Contact: Carmen Santos | 415.972.3360 office |
| Environmental Consultant – ARCADIS<br>Contact: Erica Kalve | 510.652.4500 office<br>510.501.1789 cell |
| Site Construction Manager<br>Contact: *** to be designated before work begins*** | *** to be designated before work begins*** |

## 8. References

Alameda County Environmental Health (ACEH). 2009. Final CAP Approval for Fuel Leak Case No. RO0000411 and GeoTracker Global ID T0600101950, Pacific Electric Motor, 1009 66th Avenue, Oakland, CA 94621. August 13.

ARCADIS U.S., Inc. (ARCADIS). 2009a. Revised Corrective Action Plan, Proposed Aspire High School Site, 1009 66th Avenue, Oakland, California. July 17.

———. 2009b. Toxic Substance Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California. October 23.

———. 2009c. Conditional Approval of the Toxic Substance Control Act Self-Implementing Cleanup Notification and Certification, Former Pacific Electric Motors Facility, 1009 66th Avenue in Oakland, California. November 18.

———. 2010a. Implementation of the Toxic Substances Control Act Self-Implementing Cleanup Notification at the Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California. August 12.

ASPIRE
PUBLIC SCHOOLS

December 2, 2014

Ms. Carmen Santos
United States Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

Subject: CAP Modification Plan Addendum for the Former Pacific Electric Motors Site, 1009 66th Avenue, Oakland, California (Fuel Leak Case Number RO0000411)

Dear Ms. Santos:

Enclosed is the CAP Modification Plan Addendum for the Former Pacific Electric Motors Site 1009 66th Avenue, Oakland, California; Alameda County Environmental Health (ACDEH) Fuel Leak Case Number RO0000411 ("the Site"). This Addendum is provided for your review and approval in preparation for construction of the proposed Bldg. 300.

I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions or comments, please call Erica Kalve of ARCADIS at (415) 491-4530 extension 22, or me at (510) 434-5071.

Sincerely,

Tim Simon
Aspire Public Schools

Enclosure

ARCADIS

*Infrastructure · Water · Environment · Buildings*

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**College for Certain, LLC**

# Cap Modification Plan Addendum

Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California
(Fuel Leak Case Number RO0000411)

December 4, 2014

ARCADIS

PROFESSIONAL GEOLOGIST
ERICA KALVE
No.8425
STATE OF CALIFORNIA

Expires Sept. 30, 2015

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Senior Geologist

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Project Engineer

**Cap Modification Plan Addendum**

Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California

Prepared for:
College for Certain, LLC

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Our Ref.:
EM009155.0017

Date:
December 4, 2014

ARCADIS

**Cap Modification Plan Addendum**

Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California


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## 1. Introduction

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this Cap Modification Plan Addendum (Addendum) for the Former PacificElectric Motors (PEM) Facility located at 1009 66th Avenue in Oakland, California ("the Site"; Figures 1 and 2). This Addendum covers additional soil sampling in the proposed gymnasium building (Building 300; Figure 2) footprint and air monitoring to protect persons from direct exposure to potential residual concentrations of polychlorinated biphenyls (PCBs) in soil during construction activities. The scope of the Addendum is in accordance with items discussed via conference call on November 14, 2014 with representatives of the United States Environmental Protection Agency (USEPA), Aspire Public Schools (Aspire on behalf of CFC), and ARCADIS.

A Cap Modification Plan (CMP; ARCADIS 2014) was submitted on October 17, 2014 and comments were verbally received from USEPA. As discussed, the purpose for the proposed scope of work included in this Addendum is to pre-characterize PCB-affected soil that is beneath the cap for waste disposal and to mitigate potential exposure of affected soil due to the construction activities.

This Addendum includes the following updates:

- Fourteen additional soil boring locations were added to the area of the proposed building footprint (Figure 3); soil samples will be collected only from the cement-treated native soil layer.
- Soil samples will be collected only from the cement-treated native soil layer for the two sample locations outside of the proposed building footprint (Figure 3).
- Results of the pre-demolition sampling will be used to pre-characterize and profile the soil for disposal. Therefore, Section 2.5.4 of the CMP (Soil Characterization and Off-Site Reuse/Disposal) will not be implemented.
- The estimated quantities of material that will be generated during construction were reviewed and updated quantities are presented.
- A description of the perimeter air monitoring program that will be implemented during building construction based on analytical results from the soil sampling event.

## 2. Pre-Demolition Soil Sampling Plan

The purpose of the pre-demolition soil sampling plan is to assess soil quality within the area of the cap (canopy footings, site utilities, and proposed building footprint) that will be modified down to the cement-treated native soil and native soil, and to pre-characterize the soil for disposal. Twelve soil boring locations (ten at the locations of the proposed canopy footings and two on the north and south side of the proposed building 300) were proposed in the CMP (ARCADIS 2014). Soil samples were proposed to be collected at depths of approximately 0.5 to 1.0 feet (below ground surface) bgs in the cement treated native soil, and 2.5 to 3.0 feet bgs in the native soil. However, because excavation into native soil will not occur in the vicinity of the two soil boring locations at the north and south end of the proposed building, the revise dplan is to collect one soil sample at each location between 0.5 to 1.0 foot bgs to characterize cement treated native soil. Additionally, fourteen soil boring locations are included in this Addendum as discussed on the November 14, 2014 conference call with Aspire and USEPA. The advancement of the fourteen soil borings, soil sample collection and laboratory analysis are described below.

### 2.1 Soil Borings

ARCADIS will advance an additional fourteen soil borings to a depth of between 0.5 and 1.0 feet bgs. Soil boring locations are shown on Figure 3. The proposed locations are positioned within the proposed building footprint in a 25 feet by 25 feet hexagonal grid.

### 2.2 Soil Sample Collection

Fourteen soil samples will be collected from fourteen soil boring locations using direct push sampling techniques. Soil samples will be collected at depths of approximately 0.5 to 1.0 feet bgs at each location. Samples will be collected from the cement treated native soil layer. The soil samples will be transferred into clean, laboratory-provided sample containers, labeled stored in an ice-chilled cooler, and transported under chain-of-custody protocol to the laboratory for analysis.

### 2.3 Laboratory Analyses

Soil samples will be submitted to a state-certified laboratory for the following analyses:

- TPHg by USEPA test method 8015, modified

- benzene, using USEPA test method 8260
- arsenic and lead by USEPA test method 6010B
- PCBs by USEPA test method 8082

In order for the soil to be re-used at the Site, the analytical results should be less than the site specific clean up goals listed in Section 2.4 of the CMP.

### 2.4 Reporting

ARCADIS will transmit the analytical results for these samples to the USEPA within 10 days of receiving the analytical results.

## 3. Soil Management Plan

This section provides an update/revision to the soil management plan in the CMP.

### 3.1 Soil Management Strategy

Soil will not be reuse at the Site. Soils containing native soil material (i.e., cement treated native soil or native soil) will be pre-characterized prior to construction; as the excavated material is generated, it will be placed in plastic-lined roll-off bins equipped with lids to prevent dust emissions.

#### 3.1.1 Stockpile Management

Instead of stockpiling, soil generated from construction activities will be placed directly onto roll-off bins with secured lids on site or placed directly onto trucks for immediate hauling. The lids of the bins will be closed securely to control dust emissions while the roll-off bins are loaded with site soil. No waste will be removed from the Site without Aspire's written permission.

#### 3.1.2 Soil Characterization and Off-Site Reuse/Disposal

Results of the pre-demolition sampling will be used to pre-characterize and profile the soil for off-site disposal. Therefore Section 2.5.4 of the CMP will not be implemented. Subsequent to permission by Aspire, all soils removed from the Site for disposal will be disposed of at a disposal facility approved by Aspire and that meets the regulatory and

permitting requirements to accept the waste. All soil transportation and disposal documentation must be forwarded to Aspire upon completion of the disposal activities. All documentation regarding soil removal and disposal must be submitted to USEPA within 14 days after disposal.

## 4. Demolition Plan

The demolition plan includes the disturbance or removal of the existing cap located at Building 300 (see Figure 3). ARCADIS conducted a review and updated the estimated quantities of cap materials that will be generated as part of the CMP. The updated table is presented below.

| Cap Material | Estimated Removal Quantity (cy) |
|---|---|
| Concrete | 20 to 23 |
| Asphalt | 66 to 74 |
| Aggregate Base | 114 to 126 |
| Cement Treated Soil | 202 to 224 |
| Native Soil | 7 to 10 |

### 4.1 Waste Segregation and Disposal Plan

To the extent possible, material that does not contain native soil (i.e., asphalt, concrete, and aggregate base rock) will be segregated and managed separately than the material that does contain native soil (i.e., cement treated native soil and native soil). The material that does not contain native soil (asphalt, concrete and aggregate base rock) will be transported to a local recycling center to be processed and recycled into re-usable construction material.

The cement treated native soil and native soil will be handled in accordance with Section 3.1 of this Addendum. As described, excavated soil will not be reused at the Site. Subsequent to permission by Aspire, soil removed from the Site for disposal will be transported to a facility approved by Aspire and that meets the regulatory and permitting requirements for disposal. All documentation regarding soil removal and disposal will be submitted to USEPA within 14 days after disposal.

## 5. Perimeter Air Monitoring Plan

Perimeter air monitoring activities will be implemented during the construction activities to monitor for potential airborne dust potentially containing PCBs. The greatest potential for airborne transport of PCBs during the construction activities of the proposed building is via released particulate matter ("fugitive dust"). During work activities, PCBs adsorbed to particulate matter could be transported into ambient air by wind erosion and/or mechanical disturbances of subsurface soil.

Potential exposure to PCBs will be assessed through real-time dust monitoring.. Potential Action Levels and the procedures for developing the chemical-specific risk-based Action Levels are presented below.

### 5.1 Development and Selection of Action Levels

The objectives of the perimeter air monitoring during the proposed work is to demonstrate that the surrounding community is protected from potential exposure to PCBs in the form of fugitive dust and to evaluate the adequacy of dust control methods being applied by the contractor. This section describes the procedures and potentially applicable or relevant state and federal regulations and guidelines considered during the development of Action Levels for perimeter air sampling.

#### 5.1.1 Chemical-Specific Risk-Based Action Levels

The on-site populations were identified as the most sensitive populations potentially exposed to fugitive dust. The workers within the construction zone will be protected against potential exposure because of the engineering controls and personal protective equipment utilized per the site-specific health and safety plan (HASP). The identified on-site receptors include workers and students (high school age). The high school student receptor is assumed to be the most sensitive on-site receptor. Chemical-specific action levels developed to protect the student will also be protective of less sensitive receptors, such as the worker or visitors. The on-site student Action Levels will be applied for the on-site worker Action Levels.

The equation and parameters that will be used in the calculations for the PCBs are presented below. The exposure input parameters are presented below.

$$AL = \frac{CR \times AT \times LT}{EF \times ED \times ET \times IUR}$$

**Table A: Exposure Input Parameters**

| Input Parameter | Value | Units | Source |
|---|---|---|---|
| Age of Receptor | 12 to 18 | years | Most sensitive receptor |
| Cancer Risk (CR) | $1 \times 10^{-6}$ | | US EPA 1989 |
| Exposure Time (ET) | 8/24 | Hours exposed/hours in a day | Hours of construction activities |
| Averaging Time (AT) | 25,550 | days | US EPA |
| Exposure Frequency (EF) | 20 | days/year | Days of soil excavation activities |
| Exposure Duration (ED) | 0.25 | year | Activity to be completed in less than 3 months |
| Inhalation Unit Risk (IUR) | (IUT) | $\mu g/m^3$ | US EPA 2014 |
| LT | Lifetime | years | 70 |

5.1.2 Potential Dust Action Levels Calculated Based on Chemical-Specific Risk-Based Action Levels

An evaluation will be performed to identify whether the Dust Action Level would be protective of the on-site receptors. The maximum detected concentration of PCBs based on the pre-demolition soil sampling results will be used to calculate a hypothetical dust concentration. This hypothetical dust concentration was compared to

total allowable dust concentration. The hypothetical dust action level will be used to calculate using the following equation:

$$\text{Dust Concentration (mg/m}^3\text{)} = \frac{\text{AL (mg/m}^3\text{)}}{\text{PCB}_{max}\text{ (mg/kg) x 10}^{-6}\text{ kg/mg}}$$

Where:

AL = Action Level
$PCB_{max}$ = maximum detected PCBs concentration

### 5.2 Perimeter Air Sampling Protocols

This section outlines protocols for perimeter air sampling for dust, PM10, and PCBs. Perimeter monitoring will include sampling for dust and PCBs during all activities associated with the removal of the existing cap and subsurface soil. Dust monitoring will be conducted for the remaining grading activities; however, following the removal of the subsurface soil, airborne PCB monitoring will no longer be necessary.

Work will be temporarily halted and the USEPA will be consulted regarding a plan for further action, if a direct-reading instrument result is more than five times its Action Level. Temporarily halting work and consulting USEPA if a PCB is detected greater than five times its Action Level is considered appropriate based on methodology used by Agency for Toxic Substances and Disease Registry (ATSDR) for extrapolation of MRLs across exposure durations. Therefore, halting work before reaching 5-times the Action Level for a PCB is consistent with the ATSDR methodology for extrapolating potential adverse health effects resulting from exposure to PCBs over a longer duration.

#### 5.2.1 Meteorological Measurements

A meteorological station will be maintained at a location that is free from obstruction and generally representative of wind patterns present at the Site. The meteorological station will be placed at the downwind upwind (southwestern) air monitoring location.

Wind speed and wind direction measurements will be collected continuously at the Site during soil loading and grading activities. A wind sock will also be located at the Site.

The wind speed and wind direction will be collected using an anemometer and wind direction sensor, which utilizes a potentiometer. The anemometer and wind vane will be mounted at least 20 feet away from and 4 feet above any structures or other obstructions that could affect ambient air flow patterns. A Met One Model 4 Wind Recorder (or other similar model) will calculate 15-minute average wind speed and direction data for the Site. The 15-minute average wind speed and direction data will be retained by an onboard data logging system that will be downloaded on a daily basis.

If the sustained wind speed exceeds 15 mph (sustained for 15 minutes), work will be stopped.

5.2.2 Air Monitoring Station Locations

The purpose of the air monitoring stations is to collect data from the most likely pathway for PCBs to migrate off site to locations where exposures to human receptors could occur. A total of four perimeter air sampling stations will be located around the boundary of the proposed building in the vicinity of the active work areas. One station will be located crosswind, one station upwind and one station downwind.

There may be relatively high levels of chemicals and particulates in air due to the high number of large-scale industrial companies in the vicinity of the Site. Therefore, background concentrations of analytes will be monitored at each of the four air monitoring stations for two days prior to implementing activities associated with the construction activities.

As discussed above, wind direction will be monitored during the construction activities where PCB emissions could occur. If the wind data indicate that a significant shift in wind direction has occurred, work will be suspended until the perimeter air sampling stations can be repositioned, as appropriate.

5.2.3 Air Monitoring Parameters

PCBs will be monitored during the perimeter air monitoring activities associated with the proposed work. In addition, real-time monitoring for total dust will also be performed at the work areas and at the Site's perimeter.

Back-up batteries and back-up air monitoring equipment (i.e., pumps) will be maintained on site during implementation of the proposed work to minimize potential issues associated with disabled or faulty air monitoring equipment.

It is anticipated that during highly inclement weather, the contractor will not be performing work at the Site. However, light precipitation may affect air monitoring results by biasing real-time total dust measurements high due to moisture in the air. In inclement weather the air monitoring plan may be modified in consultation with the USEPA to protect equipment and preserve the accuracy of monitoring results.

#### 5.2.4 Total Airborne Dust (Real-Time Air Monitoring)

TSI Inc aerosol monitor model number 510 (TSI AM510) without a particle size-specific inlet, or Personal DataRAMS (PDRs), will be used to provide immediate information for total airborne dust levels present at the site perimeter station location. The data collected will provide real-time information that will be used to evaluate the effectiveness of dust control procedures being implemented by the contractor. In addition, the total dust measurements provide data that can be used to evaluate potential PCB-specific airborne concentrations.

The monitors will be checked approximately every hour during the work shift to verify operation and compliance with the target Action Levels. The airborne dust concentration will be recorded in a data logger and the stored data will be downloaded at the end of each work shift. The monitors will be factory calibrated and operated in accordance with the manufacturer's instructions.

#### 5.2.5 Sample Collection and Analysis Frequencies

Perimeter monitoring will include sampling for dust, and PCBs during all activities associated with the removal of the cap and subsurface soil. Dust monitoring will be conducted for the remaining construction activities; however, following the removal of the cap and subsurface soil, air monitoring for PCBs will no longer be necessary.

## 6. References

Agency for Toxic Substances and Disease Registry (ATSDR). 2004. Agency for Toxic Substances and Disease Registry, Division of Toxicology. Minimal Risk Levels (MRLs) for Hazardous Substances. December.

ARCADIS U.S., Inc. (ARCADIS). 2014. Cap Modification Plan, Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California. October 17.

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US EPA 2009. RAGS Supplemental Guidance for Inhalation Risk Assessment, Volume I, Human Health Evaluation Manual (Part F). EPA/540/R-070-002. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. January.

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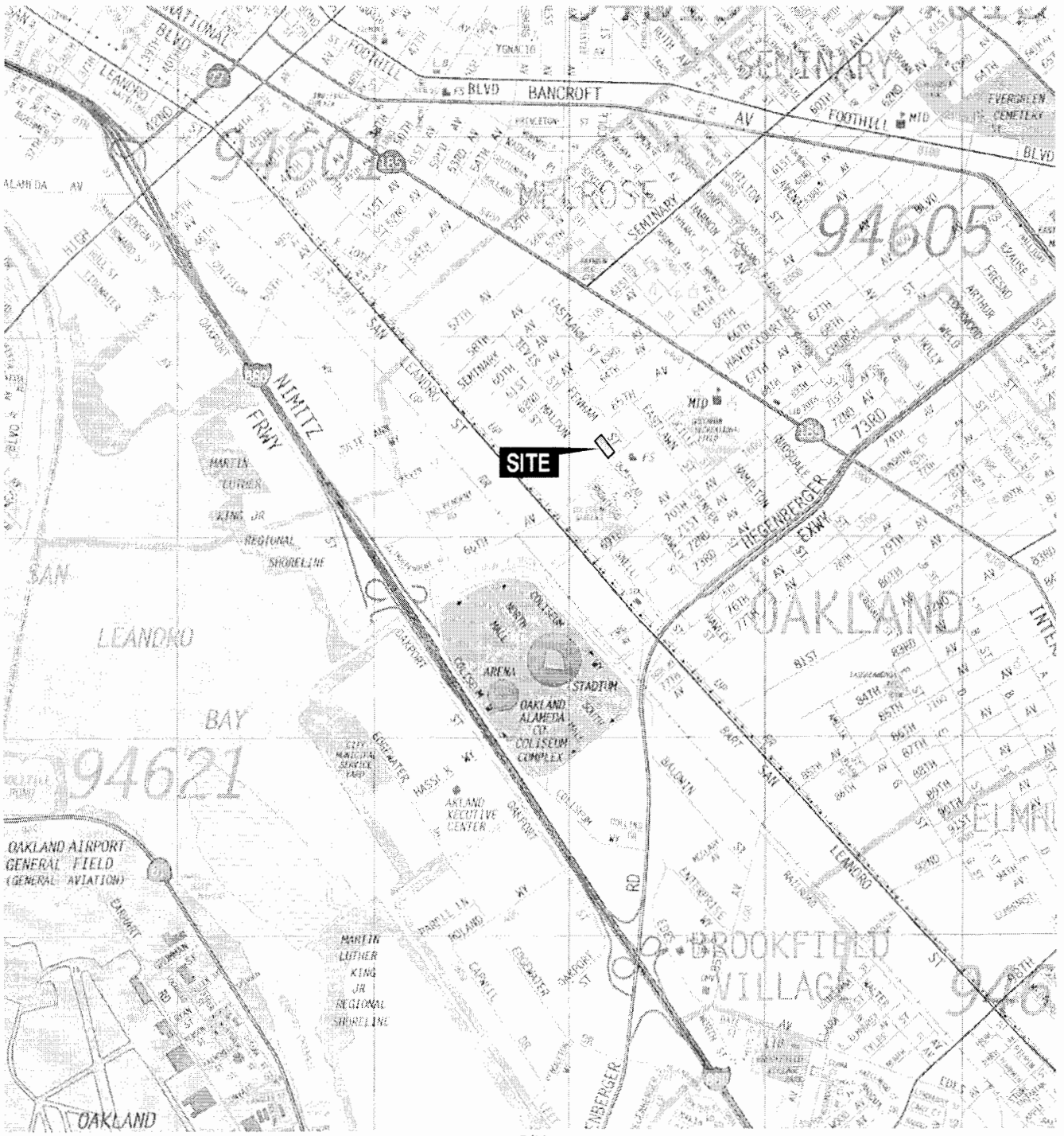
# Figures

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0 2,000 4,000 FEET

1009 66TH AVENUE, OAKLAND, CALIFORNIA

**SITE VICINITY MAP**

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FIGURE 1

DESIGN\003\091155\Figure 1 Site Vicinity - 003-091155.cdr

ASPIRE
PUBLIC SCHOOLS

December 2, 2014

Ms. Carmen Santos
United States Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

Subject: CAP Modification Plan Addendum for the Former Pacific Electric Motors Site, 1009 66th Avenue, Oakland, California (Fuel Leak Case Number RO0000411)

Dear Ms. Santos:

Enclosed is the CAP Modification Plan Addendum for the Former Pacific Electric Motors Site 1009 66th Avenue, Oakland, California; Alameda County Environmental Health (ACDEH) Fuel Leak Case Number RO0000411 ("the Site"). This Addendum is provided for your review and approval in preparation for construction of the proposed Bldg. 300.

I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions or comments, please call Erica Kalve of ARCADIS at (415) 491-4530 extension 22, or me at (510) 434-5071.

Sincerely,

Tim Simon
Aspire Public Schools

Has Aspire / Arcadis share this plan with County?

Enclosure

ARCADIS

*Infrastructure · Water · Environment · Buildings*

Imagine the result

**College for Certain, LLC**

# Cap Modification Plan Addendum

Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California
(Fuel Leak Case Number RO0000411)

December 4, 2014

ARCADIS

PROFESSIONAL GEOLOGIST
ERICA KALVE
No.8425
STATE OF CALIFORNIA

Expires Sept. 30, 2015

Erica Kalve, PG-CA (8425)
Senior Geologist

Amy Goldberg Day
Principal Toxicologist

Angeline Tan
Project Engineer

**Cap Modification Plan Addendum**

Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California

Prepared for:
College for Certain, LLC

Prepared by:
ARCADIS U.S., Inc.
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Suite 329
San Rafael
California 94903
Tel 415 491 4530
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Our Ref.:
EM009155.0017

Date:
December 4, 2014

ARCADIS

**Cap Modification Plan Addendum**

Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California


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Figure 3 Building 300 Cap Modification Plan

## 1. Introduction

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this Cap Modification Plan Addendum (Addendum) for the Former PacificElectric Motors (PEM) Facility located at 1009 66th Avenue in Oakland, California ("the Site"; Figures 1 and 2). This Addendum covers additional soil sampling in the proposed gymnasium building (Building 300; Figure 2) footprint and air monitoring to protect persons from direct exposure to potential residual concentrations of polychlorinated biphenyls (PCBs) in soil during construction activities. The scope of the Addendum is in accordance with items discussed via conference call on November 14, 2014 with representatives of the United States Environmental Protection Agency (USEPA), Aspire Public Schools (Aspire on behalf of CFC), and ARCADIS.

A Cap Modification Plan (CMP; ARCADIS 2014) was submitted on October 17, 2014 and comments were verbally received from USEPA. As discussed, the purpose for the proposed scope of work included in this Addendum is to pre-characterize PCB-affected soil that is beneath the cap for waste disposal and to mitigate potential exposure of affected soil due to the construction activities.

This Addendum includes the following updates:

- Fourteen additional soil boring locations were added to the area of the proposed building footprint (Figure 3); soil samples will be collected only from the cement-treated native soil layer.
- Soil samples will be collected only from the cement-treated native soil layer for the two sample locations outside of the proposed building footprint (Figure 3).
- Results of the pre-demolition sampling will be used to pre-characterize and profile the soil for disposal. Therefore, Section 2.5.4 of the CMP (Soil Characterization and Off-Site Reuse/Disposal) will not be implemented.
- The estimated quantities of material that will be generated during construction were reviewed and updated quantities are presented.
- A description of the perimeter air monitoring program that will be implemented during building construction based on analytical results from the soil sampling event.

## 2. Pre-Demolition Soil Sampling Plan

The purpose of the pre-demolition soil sampling plan is to assess soil quality within the area of the cap (canopy footings, site utilities, and proposed building footprint) that will be modified down to the cement-treated native soil and native soil, and to pre-characterize the soil for disposal. Twelve soil boring locations (ten at the locations of the proposed canopy footings and two on the north and south side of the proposed building 300) were proposed in the CMP (ARCADIS 2014). Soil samples were proposed to be collected at depths of approximately 0.5 to 1.0 feet (below ground surface) bgs in the cement treated native soil, and 2.5 to 3.0 feet bgs in the native soil. However, because excavation into native soil will not occur in the vicinity of the two soil boring locations at the north and south end of the proposed building, the revise dplan is to collect one soil sample at each location between 0.5 to 1.0 foot bgs to characterize cement treated native soil. Additionally, fourteen soil boring locations are included in this Addendum as discussed on the November 14, 2014 conference call with Aspire and USEPA. The advancement of the fourteen soil borings, soil sample collection and laboratory analysis are described below.

### 2.1 Soil Borings

ARCADIS will advance an additional fourteen soil borings to a depth of between 0.5 and 1.0 feet bgs. Soil boring locations are shown on Figure 3. The proposed locations are positioned within the proposed building footprint in a 25 feet by 25 feet hexagonal grid.

Total samples = 36

### 2.2 Soil Sample Collection

Lab must thoroughly homogenize sample prior to extraction.

Fourteen soil samples will be collected from fourteen soil boring locations using direct push sampling techniques. Soil samples will be collected at depths of approximately 0.5 to 1.0 feet bgs at each location. Samples will be collected from the cement treated native soil layer. The soil samples will be transferred into clean, laboratory-provided sample containers, labeled stored in an ice-chilled cooler, and transported under chain-of-custody protocol to the laboratory for analysis.

### 2.3 Laboratory Analyses

Soil samples will be submitted to a state-certified laboratory for the following analyses:

- TPHg by USEPA test method 8015, modified

Alameda County has a say on the reuse of soil if non-PCB contamin. exceed clean up levels.

- benzene, using USEPA test method 8260
- ~~arsenic and lead by USEPA~~ test method 6010B
- PCBs by USEPA test method 8082 ← what extraction method?

In order for ~~the soil to be re-used~~ at the Site, the analytical results should be less than the site specific clean up goals listed in Section 2.4 of the CMP.

### 2.4 Reporting

ARCADIS will transmit the analytical results for these samples to the USEPA within 10 days of receiving the analytical results.

results should also be transmitted to County.

## 3. Soil Management Plan

This section provides an update/revision to the soil management plan in the CMP.

### 3.1 Soil Management Strategy

drilling through cap during cap removal precharacterization

Soil will not be reuse at the Site. Soils containing native soil material (i.e., cement treated native soil or native soil) will be pre-characterized prior to construction; as the excavated material is generated, it will be placed in plastic-lined roll-off bins equipped with lids to prevent dust emissions.

verify that sampling will be in situ.

have condition. locked bins

#### 3.1.1 Stockpile Management

Instead of stockpiling, soil generated from construction activities will be placed directly onto roll-off bins with secured lids on site or placed directly onto trucks for immediate hauling. The lids of the bins will be closed securely to control dust emissions while the roll-off bins are loaded with site soil. No waste will be removed from the Site without Aspire's written permission.

Does this mean it will be locked also?

#### 3.1.2 Soil Characterization and Off-Site Reuse/Disposal

Results of the pre-demolition sampling will be used to pre-characterize and profile the soil for off-site disposal. Therefore Section 2.5.4 of the CMP will not be implemented. Subsequent to permission by Aspire, all soils removed from the Site for disposal will be disposed of at a disposal facility approved by Aspire and that meets the regulatory and

permitting requirements to accept the waste. All soil transportation and disposal documentation must be forwarded to Aspire upon completion of the disposal activities. All documentation regarding soil removal and disposal must be submitted to USEPA within 14 days after disposal.

## 4. Demolition Plan

The demolition plan includes the disturbance or removal of the existing cap located at Building 300 (see Figure 3). ARCADIS conducted a review and updated the estimated quantities of cap materials that will be generated as part of the CMP. The updated table is presented below.

| Cap Material | Estimated Removal Quantity (cy) |
|---|---|
| Concrete | 20 to 23 |
| Asphalt | 66 to 74 |
| Aggregate Base | 114 to 126 |
| Cement Treated Soil | 202 to 224 |
| Native Soil | 7 to 10 |

1 yd = 3 ft
1 cu yd = 27 cu ft.

### 4.1 Waste Segregation and Disposal Plan

To the extent possible, material that does not contain native soil (i.e., asphalt, concrete, and aggregate base rock) will be segregated and managed separately than the material that does contain native soil (i.e., cement treated native soil and native soil). The material that does not contain native soil (asphalt, concrete and aggregate base rock) will be transported to a local recycling center to be processed and recycled into re-usable construction material.

The cement treated native soil and native soil will be handled in accordance with Section 3.1 of this Addendum. As described, excavated soil will not be reused at the Site. Subsequent to permission by Aspire, soil removed from the Site for disposal will be transported to a facility approved by Aspire and that meets the regulatory and permitting requirements for disposal. All documentation regarding soil removal and disposal will be submitted to USEPA within 14 days after disposal.

This means off site disposal?

## 5. Perimeter Air Monitoring Plan

Perimeter air monitoring activities will be implemented during the construction activities to monitor for potential airborne dust potentially containing PCBs. The greatest potential for airborne transport of PCBs during the construction activities of the proposed building is via released particulate matter ("fugitive dust"). During work activities, PCBs adsorbed to particulate matter could be transported into ambient air by wind erosion and/or mechanical disturbances of subsurface soil.

Potential exposure to PCBs will be assessed through real-time dust monitoring.. Potential Action Levels and the procedures for developing the chemical-specific risk-based Action Levels are presented below.

### 5.1 Development and Selection of Action Levels

The objectives of the perimeter air monitoring during the proposed work is to demonstrate that the surrounding community is protected from potential exposure to PCBs in the form of fugitive dust and to evaluate the adequacy of dust control methods being applied by the contractor. This section describes the procedures and potentially applicable or relevant state and federal regulations and guidelines considered during the development of Action Levels for perimeter air sampling.

#### 5.1.1 Chemical-Specific Risk-Based Action Levels

The on-site populations were identified as the most sensitive populations potentially exposed to fugitive dust. The workers within the construction zone will be protected against potential exposure because of the engineering controls and personal protective equipment utilized per the site-specific health and safety plan (HASP). The identified on-site receptors include workers and students (high school age). The high school student receptor is assumed to be the most sensitive on-site receptor. Chemical-specific action levels developed to protect the student will also be protective of less sensitive receptors, such as the worker or visitors. The on-site student Action Levels will be applied for the on-site worker Action Levels.

The equation and parameters that will be used in the calculations for the PCBs are presented below. The exposure input parameters are presented below.

$$AL = \frac{CR \times AT \times LT}{EF \times ED \times ET \times IUR}$$

**Table A: Exposure Input Parameters**

| Input Parameter | Value | Units | Source |
|---|---|---|---|
| Age of Receptor | 12 to 18 | years | Most sensitive receptor |
| Cancer Risk (CR) | $1 \times 10^{-6}$ | | US EPA 1989 |
| Exposure Time (ET) | 8/24 | Hours exposed/hours in a day | Hours of construction activities |
| Averaging Time (AT) | 25,550 | days | US EPA |
| Exposure Frequency (EF) | 20 | days/year | Days of soil excavation activities |
| Exposure Duration (ED) | 0.25 | year | Activity to be completed in less than 3 months |
| Inhalation Unit Risk (IUR) | (IUT) | $\mu g/m^3$ | US EPA 2014 |
| LT | Lifetime | years | 70 |

5.1.2 Potential Dust Action Levels Calculated Based on Chemical-Specific Risk-Based Action Levels

An evaluation will be performed to identify whether the Dust Action Level would be protective of the on-site receptors. The maximum detected concentration of PCBs based on the pre-demolition soil sampling results will be used to calculate a hypothetical dust concentration. This hypothetical dust concentration was compared to

total allowable dust concentration. The hypothetical dust action level will be used to calculate using the following equation:

$$\text{Dust Concentration (mg/m}^3\text{)} = \frac{\text{AL (mg/m}^3\text{)}}{\text{PCB}_{max}\text{ (mg/kg) x 10}^{-6}\text{ kg/mg}}$$

Where:

AL = Action Level
$PCB_{max}$ = maximum detected PCBs concentration

### 5.2 Perimeter Air Sampling Protocols

This section outlines protocols for perimeter air sampling for dust, PM10, and PCBs. Perimeter monitoring will include sampling for dust and PCBs during all activities associated with the removal of the existing cap and subsurface soil. Dust monitoring will be conducted for the remaining grading activities; however, following the removal of the subsurface soil, airborne PCB monitoring will no longer be necessary.

Work will be temporarily halted and the USEPA will be consulted regarding a plan for further action, if a direct-reading instrument result is more than five times its Action Level. Temporarily halting work and consulting USEPA if a PCB is detected greater than five times its Action Level is considered appropriate based on methodology used by Agency for Toxic Substances and Disease Registry (ATSDR) for extrapolation of MRLs across exposure durations. Therefore, halting work before reaching 5-times the Action Level for a PCB is consistent with the ATSDR methodology for extrapolating potential adverse health effects resulting from exposure to PCBs over a longer duration.

#### 5.2.1 Meteorological Measurements

A meteorological station will be maintained at a location that is free from obstruction and generally representative of wind patterns present at the Site. The meteorological station will be placed at the downwind upwind (southwestern) air monitoring location.

Wind speed and wind direction measurements will be collected continuously at the Site during soil loading and grading activities. A wind sock will also be located at the Site.

The wind speed and wind direction will be collected using an anemometer and wind direction sensor, which utilizes a potentiometer. The anemometer and wind vane will be mounted at least 20 feet away from and 4 feet above any structures or other obstructions that could affect ambient air flow patterns. A Met One Model 4 Wind Recorder (or other similar model) will calculate 15-minute average wind speed and direction data for the Site. The 15-minute average wind speed and direction data will be retained by an onboard data logging system that will be downloaded on a daily basis.

If the sustained wind speed exceeds 15 mph (sustained for 15 minutes), work will be stopped.

#### 5.2.2 Air Monitoring Station Locations

The purpose of the air monitoring stations is to collect data from the most likely pathway for PCBs to migrate off site to locations where exposures to human receptors could occur. A total of four perimeter air sampling stations will be located around the boundary of the proposed building in the vicinity of the active work areas. One station will be located crosswind, one station upwind and one station downwind.

There may be relatively high levels of chemicals and particulates in air due to the high number of large-scale industrial companies in the vicinity of the Site. Therefore, background concentrations of analytes will be monitored at each of the four air monitoring stations for two days prior to implementing activities associated with the construction activities.

As discussed above, wind direction will be monitored during the construction activities where PCB emissions could occur. If the wind data indicate that a significant shift in wind direction has occurred, work will be suspended until the perimeter air sampling stations can be repositioned, as appropriate.

#### 5.2.3 Air Monitoring Parameters

PCBs will be monitored during the perimeter air monitoring activities associated with the proposed work. In addition, real-time monitoring for total dust will also be performed at the work areas and at the Site's perimeter.

Back-up batteries and back-up air monitoring equipment (i.e., pumps) will be maintained on site during implementation of the proposed work to minimize potential issues associated with disabled or faulty air monitoring equipment.

It is anticipated that during highly inclement weather, the contractor will not be performing work at the Site. However, light precipitation may affect air monitoring results by biasing real-time total dust measurements high due to moisture in the air. In inclement weather the air monitoring plan may be modified in consultation with the USEPA to protect equipment and preserve the accuracy of monitoring results.

#### 5.2.4 Total Airborne Dust (Real-Time Air Monitoring)

TSI Inc aerosol monitor model number 510 (TSI AM510) without a particle size-specific inlet, or Personal DataRAMS (PDRs), will be used to provide immediate information for total airborne dust levels present at the site perimeter station location. The data collected will provide real-time information that will be used to evaluate the effectiveness of dust control procedures being implemented by the contractor. In addition, the total dust measurements provide data that can be used to evaluate potential PCB-specific airborne concentrations.

The monitors will be checked approximately every hour during the work shift to verify operation and compliance with the target Action Levels. The airborne dust concentration will be recorded in a data logger and the stored data will be downloaded at the end of each work shift. The monitors will be factory calibrated and operated in accordance with the manufacturer's instructions.

#### 5.2.5 Sample Collection and Analysis Frequencies

Perimeter monitoring will include sampling for dust, and PCBs during all activities associated with the removal of the cap and subsurface soil. Dust monitoring will be conducted for the remaining construction activities; however, following the removal of the cap and subsurface soil, air monitoring for PCBs will no longer be necessary.

## 6. References

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US EPA 2009. RAGS Supplemental Guidance for Inhalation Risk Assessment, Volume I, Human Health Evaluation Manual (Part F). EPA/540/R-070-002. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. January.

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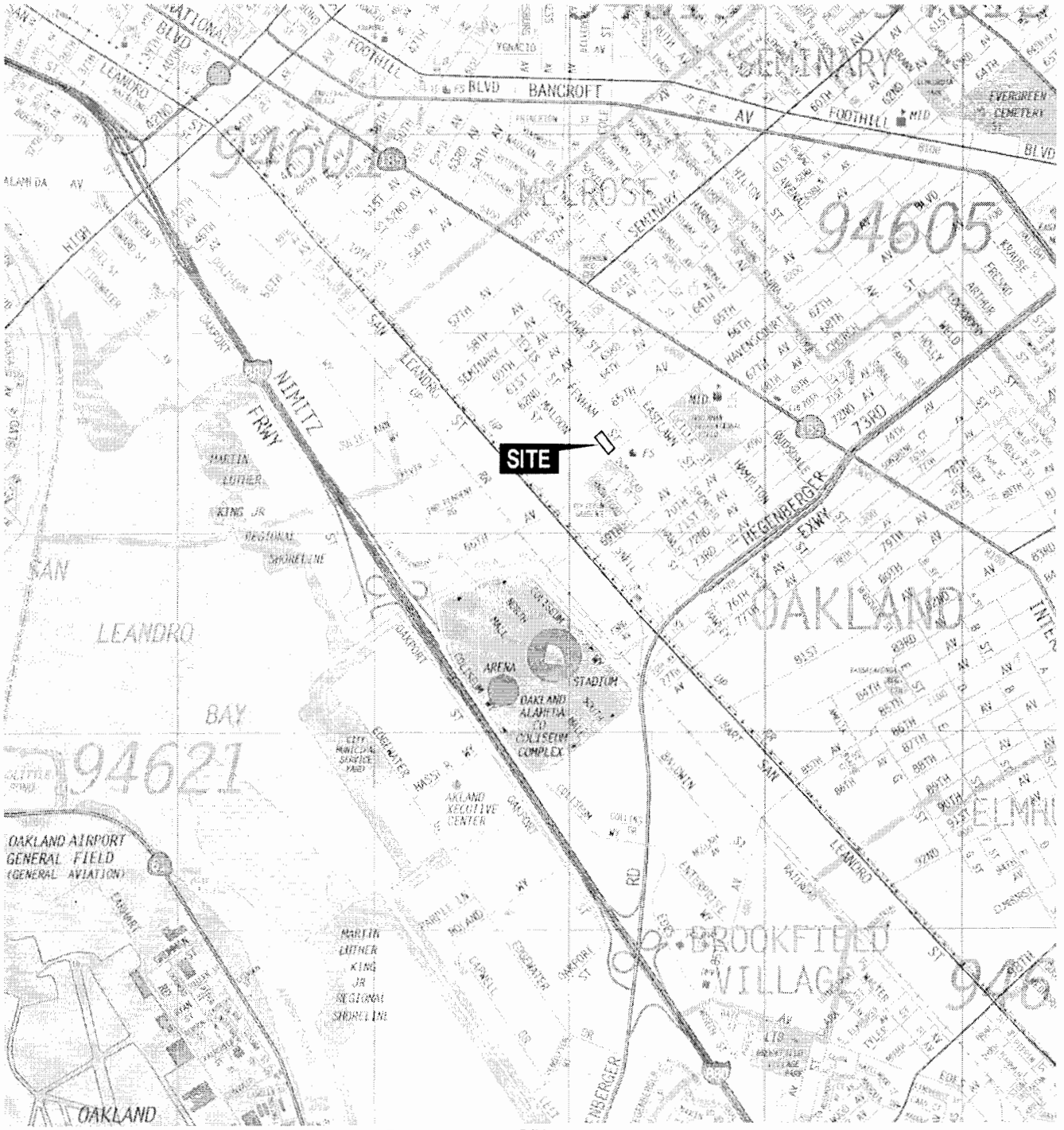
# Figures

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0 2,000 4,000 FEET

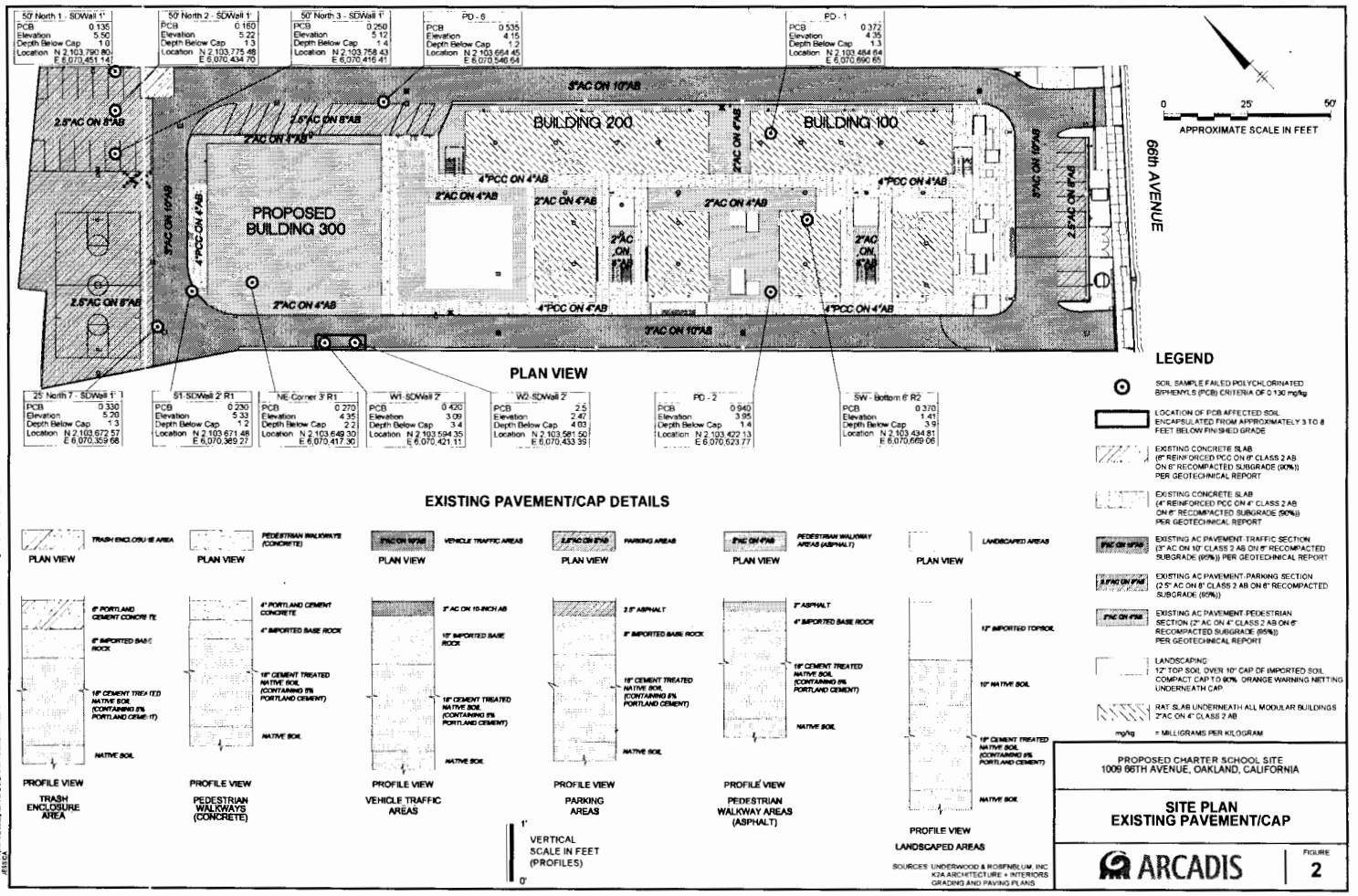
1009 66TH AVENUE, OAKLAND, CALIFORNIA

**SITE VICINITY MAP**

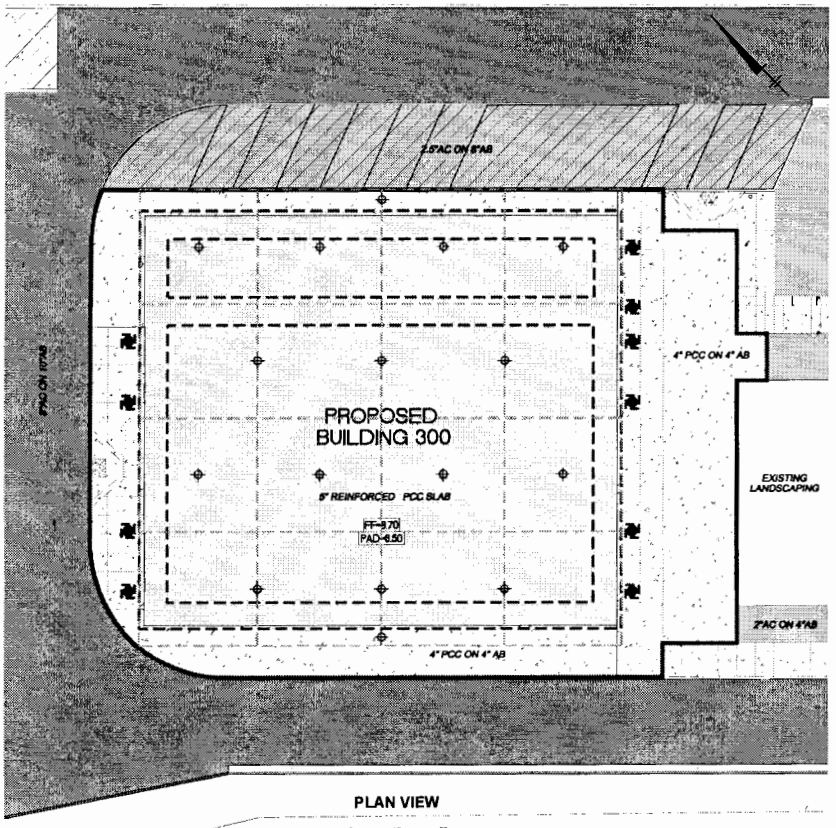
ARCADIS

FIGURE 1

DESIGN\003\09155\Figure 1 Site Vicinity - 003-09155.cdr


50' North 1 - SDWall 1'
PCB 0.135
Elevation 5.50
Depth Below Cap 1.0
Location N 2,103,790.80 E 6,070,451.14
50' North 2 - SDWall 1
PCB 0.160
Elevation 5.22
Depth Below Cap 1.3
Location N 2,103,775.48 E 6,070,434.70
50' North 3 - SDWall 1'
PCB 0.250
Elevation 5.12
Depth Below Cap 1.4
Location N 2,103,758.43 E 6,070,416.41
PD - 6
PCB 0.535
Elevation 4.15
Depth Below Cap 1.2
Location N 2,103,664.45 E 6,070,546.64
PD - 1
PCB 0.372
Elevation 4.35
Depth Below Cap 1.3
Location N 2,103,484.64 E 6,070,690.65
2.5"AC ON 8"AB
2.5"AC ON 8"AB
2"AC ON 4"AB
BUILDING 200
BUILDING 100
2"AC ON 4"AB
4"PCC ON 4"AB
4"PCC ON 4"AB
PROPOSED BUILDING 300
2"AC ON 4"AB
2"AC ON 4"AB
2"AC ON 4"AB
2"AC ON 4"AB
2"AC ON 4"AB
2"AC ON 4"AB
4"PCC ON 4"AB
4"PCC ON 4"AB
4"PCC ON 4"AB
3"AC ON 10"AB
3"AC ON 10"AB
3"AC ON 10"AB
3"AC ON 10"AB
2.5"AC ON 8"AB
2.5"AC ON 8"AB
66th AVENUE
0 25' 50'
APPROXIMATE SCALE IN FEET
25' North 7 - SDWall 1' 1
PCB 0.330
Elevation 5.20
Depth Below Cap 1.3
Location N 2,103,672.57 E 6,070,359.68
S1-SDWall 2' R1
PCB 0.230
Elevation 5.33
Depth Below Cap 1.2
Location N 2,103,671.48 E 6,070,369.27
NE-Corner 3' R1
PCB 0.270
Elevation 4.35
Depth Below Cap 2.2
Location N 2,103,649.30 E 6,070,417.30
W1-SDWall 2'
PCB 0.420
Elevation 3.09
Depth Below Cap 3.4
Location N 2,103,594.35 E 6,070,421.11
W2-SDWall 2'
PCB 2.5
Elevation 2.47
Depth Below Cap 4.03
Location N 2,103,581.50 E 6,070,433.39
PD - 2
PCB 0.940
Elevation 3.95
Depth Below Cap 1.4
Location N 2,103,422.13 E 6,070,623.77
SW - Bottom 6' R2
PCB 0.370
Elevation 1.41
Depth Below Cap 3.9
Location N 2,103,434.81 E 6,070,669.06
PLAN VIEW
LEGEND
SOIL SAMPLE FAILED POLYCHLORINATED BIPHENYLS (PCB) CRITERIA OF 0.130 mg/kg
LOCATION OF PCB AFFECTED SOIL ENCAPSULATED FROM APPROXIMATELY 3 TO 8 FEET BELOW FINISHED GRADE
EXISTING CONCRETE SLAB (6" REINFORCED PCC ON 6" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
EXISTING CONCRETE SLAB (4" REINFORCED PCC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
EXISTING AC PAVEMENT-TRAFFIC SECTION (3" AC ON 10" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
EXISTING AC PAVEMENT-PARKING SECTION (2.5" AC ON 8" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%))
EXISTING AC PAVEMENT-PEDESTRIAN SECTION (2" AC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
LANDSCAPING 12" TOP SOIL OVER 10" CAP OF IMPORTED SOIL COMPACT CAP TO 90% ORANGE WARNING NETTING UNDERNEATH CAP.
RAT SLAB UNDERNEATH ALL MODULAR BUILDINGS 2"AC ON 4" CLASS 2 AB
mg/kg = MILLIGRAMS PER KILOGRAM
EXISTING PAVEMENT/CAP DETAILS
TRASH ENCLOSURE AREA
PEDESTRIAN WALKWAYS (CONCRETE)
VEHICLE TRAFFIC AREAS
PARKING AREAS
PEDESTRIAN WALKWAY AREAS (ASPHALT)
LANDSCAPED AREAS
PLAN VIEW
6" PORTLAND CEMENT CONCRETE
6" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 6% PORTLAND CEMENT)
NATIVE SOIL
PROFILE VIEW
TRASH ENCLOSURE AREA
4" PORTLAND CEMENT CONCRETE
4" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 6% PORTLAND CEMENT)
PEDESTRIAN WALKWAYS (CONCRETE)
3" AC ON 10-INCH AB
18" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 6% PORTLAND CEMENT)
VEHICLE TRAFFIC AREAS
2.5" ASPHALT
8" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 6% PORTLAND CEMENT)
PARKING AREAS
2" ASPHALT
4" IMPORTED BASE ROCK
18" CEMENT TREATED NATIVE SOIL (CONTAINING 6% PORTLAND CEMENT)
PEDESTRIAN WALKWAY AREAS (ASPHALT)
12" IMPORTED TOPSOIL
10" NATIVE SOIL
18" CEMENT TREATED NATIVE SOIL (CONTAINING 6% PORTLAND CEMENT)
LANDSCAPED AREAS
1'
VERTICAL SCALE IN FEET (PROFILES)
0'
SOURCES: UNDERWOOD & ROSENBLUM, INC. K2A ARCHITECTURE + INTERIORS GRADING AND PAVING PLANS
PROPOSED CHARTER SCHOOL SITE
1009 66TH AVENUE, OAKLAND, CALIFORNIA
SITE PLAN
EXISTING PAVEMENT/CAP
ARCADIS
FIGURE
2

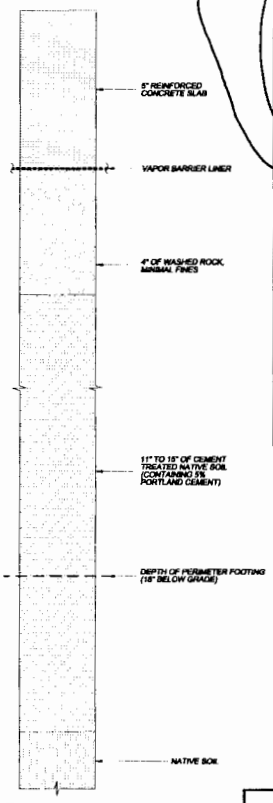
2 intervals
one sample each.
0.5 - 1 +
2.5 - 3
one sample
0.5 - 1.0




PLAN VIEW

0 12 37
APPROXIMATE SCALE IN FEET

SOURCES
UNDERWOOD & ROSENBLUM, INC
KJA ARCHITECTURE + INTERIORS GRADING AND PAVING PLANS




BUILDING 300
SLAB PROFILE VIEW

0'
1'
2'
3'
VERTICAL SCALE (PROFILES)

## LEGEND

- LIMITS OF CAP MODIFICATION
- LIMITS OF PROPOSED BUILDING FOOTING FOUNDATIONS
- LIMITS OF PROPOSED CANOPY FOOTING
- CEMENT TREATED NATIVE SOIL SAMPLE
- COMBINATION UNTREATED NATIVE SOIL AND CEMENT TREATED NATIVE SOIL SAMPLE
- MULTIPLE INCREMENTAL SAMPLING GRID
- NEW CONCRETE BUILDING SLAB (5" REINFORCED PCC, SEE PROFILE THIS FIGURE)
- NEW CONCRETE PEDESTRIAN WALKWAY SLAB (4" REINFORCED PCC ON 4" CLASS 2 AB)
- EXISTING LANDSCAPING 12" TOP SOIL OVER 10" CAP OF IMPORTED SOIL COMPACT CAP TO 90% PLACE ORANGE WARNING NETTING UNDERNEATH CAP
- 3"AC ON 10"AB — EXISTING AC PAVEMENT-TRAFFIC SECTION (3" AC ON 10" CLASS 2 AB)
- 2.5"AC ON 8"AB — EXISTING AC PAVEMENT-PARKING SECTION (2.5" AC ON 8" CLASS 2 AB)
- 2"AC ON 4"AB — EXISTING AC PAVEMENT-PEDESTRIAN SECTION (2" AC ON 4" CLASS 2 AB)

NOTE
1 SEE FIGURE 4 FOR LAYOUT DETAILS OF VAPOR COLLECTION SYSTEM.

PROPOSED CHARTER SCHOOL SITE
1009 66TH AVENUE, OAKLAND, CALIFORNIA

BUILDING 300 CAP MODIFICATION PLAN

ARCADIS

FIGURE 3

CITY: EMERYVILLE Ca DIVISION: RWCAD DB: A. REYES J. HARRIS
C:\Users\jharris\Desktop\CONTENT\TEMP\AUTO\ 1009 66TH AVE LAYOUT 3.DWG SAVED: 12/20/2011 9:37 PM ACADVER: 18.1 (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 12/20/2011 11:23 AM BY: HARRIS, JESSICA

ASPIRE
PUBLIC SCHOOLS

February 27, 2015

Ms. Carmen Santos
United States Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

Subject: Building 300 Construction Air Monitoring Plan for PCBs for the Former Pacific Electric Motors Site, 1009 66th Avenue, Oakland, California (Fuel Leak Case Number RO0000411)

Dear Ms. Santos:

Enclosed is the Building 300 Construction Air Monitoring Plan for PCBs for the Former Pacific Electric Motors Site 1009 66th Avenue, Oakland, California; Alameda County Environmental Health (ACDEH) Fuel Leak Case Number RO0000411 ("the Site"). This plan presents the pre-construction characterization soil sample results and associated real-time dust monitoring action levels that were calculated based on the maximum concentration of polychlorinated biphenyl concentration detected. The dust monitoring action level will be used during construction of proposed Bldg 300 and was calculated following the methodology presented in an email from you dated January 21, 2015.

I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions or comments, please call Erica Kalve of ARCADIS at (415) 491-4530 extension 22, or me at (510) 434-5071.

Sincerely,

Tim Simon
Aspire Public Schools

Enclosure

ARCADIS

*Infrastructure · Water · Environment · Buildings*

Imagine the result

**College for Certain, LLC**

# Building 300 Construction Air Monitoring Plan for PCBs

Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California
(Fuel Leak Case Number RO0000411)

February 27, 2015

ARCADIS

PROFESSIONAL GEOLOGIST
ERICA KALVE
No.8425
STATE OF CALIFORNIA

Expires Sept. 30, 2015

Erica Kalve, PG-CA (8425)
Senior Geologist

Angeline Tan
Project Engineer

**Building 300 Construction Air Monitoring Plan for PCBs**

Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California

Prepared for:
College for Certain, LLC

Prepared by:
ARCADIS U.S., Inc.
100 Smith Ranch Road
Suite 329
San Rafael
California 94903
Tel 415 491 4530
Fax 415 491 4532

Our Ref.:
EM009155.0017

Date:
February 27, 2015

ARCADIS

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A Laboratory Analytical Reports and Chain-of-Custody Documentation

B Analytical Data Validation Report

ARCADIS

## 1. Introduction

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this Building 300 Construction Air Monitoring Plan (Plan) for the Former Pacific Electric Motors (PEM) Facility located at 1009 66th Avenue in Oakland, California ("the Site"; Figure 1). This Plan describes the air monitoring activities that will be implemented during the proposed work associated with the construction of the gymnasium building (Building 300; Figure 2) to protect persons from direct exposure to potential residual concentrations of polychlorinated biphenyls (PCBs) in soil during construction activities.

A Cap Modification Plan Addendum (CMP Addendum; ARCADIS 2014b) was submitted on December 3, 2014 which described the perimeter air monitoring plan based on the analytical results from the pre-demolition soil sampling event. A separate air monitoring plan for the rest of the site chemicals of concern (COCs) will be submitted to Alameda County Environmental Health (ACEH).

## 2. Background

### 2.1 Site Description

The Site is 2.51 acres and is located on the western side of 66th Avenue between East 14th Street (to the north) and San Leandro Street (to the south). The area around the Site is developed with a mixture of commercial, industrial, government, and multi-family residential buildings. The Site is bounded by a residential development to the north, Oakland Fire Department Station Number 2 to the east across 66th Avenue, Fruitvale Business Center to the south, and Northstar International Container Freight and Container Consolidation Services to the west.

The Site was redeveloped as the Aspire Golden State College Preparatory Academy, which serves grades 6 through 12 and has capacity for 570 students; the school opened in August 2011 (see Figure 2). The school occupies approximately 1.4 acres and consists of the following site features:

- Six two-story buildings (approximately 41,430 square feet total including 24 full-sized classrooms, 4 labs, 3 girls and 3 boys restrooms, and 4 staff restrooms)
- Asphalt-paved parking area with access via two driveways on 66th Avenue (one for ingress and one for egress)

- Asphalt-paved area for recreation
- Asphalt-paved and concrete pedestrian walkways
- Planter and landscaped areas

The structures formerly associated with Pacific Electric Motors (and infrastructure) on the Site have all been demolished.

As part of the redevelopment of the Site, the ground surface comprised of roadways, sidewalks, parking areas, buildings, and planter areas is serving as a cap to mitigate potential exposure to remaining PCBs containing soil at the Site.

Site modifications include construction of a new gymnasium and recreation facility (Building 300) with associated utility connections, parking areas and pedestrian walkways. The air monitoring plan is developed to be implemented during the construction activities associated with these site modifications.

## 3. Pre-demolition Soil Sampling

The purpose of the pre-demolition soil sampling was to assess soil quality within the area of the cap (canopy footings, site utilities, and proposed building footprint) that will be modified down to the cement-treated native soil and native soil, and to pre-characterize the soil for disposal. A total of 26 soil borings were advanced using direct-push rig between January 7 and 8, 2015 in accordance with the Cap Modification Plan (CMP) and CMP Addendum (ARCADIS 2014a and 2014b). A total of 36 soil samples were collected and analyzed for the following:

- Total petroleum hydrocarbons as gasoline (TPHg) by United States Environmental Protection Agency (USEPA) test method 8015, modified
- benzene, using USEPA test method 8260B
- arsenic and lead by USEPA test method 6010B
- PCBs by USEPA test method 8082A, Soxhlet extraction, USEPA method 3540C

Results of the soil samples are presented in Table 1 and soil boring locations are shown in Figure 3. The PCB soil concentrations are summarized in Figures 4 and 5.

The laboratory analytical data and chain-of-custody are included as Appendix A. The data were further validated by ARCADIS' chemist and the validation results are included as Appendix B. Individual PCB aroclors were summed up to obtain total PCBs (Table 1).

As shown in Table 1, total PCBs were below the hazardous waste threshold of 50 milligrams per kilogram (mg/kg) and therefore the soil can be profiled as non-hazardous soil for disposal purpose.

The maximum total PCBs concentration is 11,550 micrograms per kilogram (µg/kg) which is equivalent to 11.5 mg/kg. This concentration will be used to calculate the action level for PCBs in the form of fugitive dust.

## 4. Perimeter Air Monitoring Plan

Perimeter air monitoring activities will be implemented during the construction activities to monitor for potential airborne dust potentially containing PCBs. The greatest potential for airborne transport of PCBs during the construction activities of the proposed building is via released particulate matter ("fugitive dust"). During work activities, PCBs adsorbed to particulate matter could be transported into ambient air by wind erosion and/or mechanical disturbances of subsurface soil.

Potential exposure to PCBs will be assessed through real-time dust monitoring. Potential Action Levels and the procedures for developing the chemical-specific risk based Action Levels are presented below.

### 4.1 Development of Action Levels

As noted above, the objectives of the perimeter air monitoring during the proposed work is to demonstrate that the surrounding community is protected from potential exposure to PCBs in the form of fugitive dust and to evaluate the adequacy of dust control methods being applied by the construction contractor. This section describes potentially applicable or relevant state and federal regulations and guidelines considered during the development of Action Levels for perimeter air sampling.

The on-site populations were identified as the most sensitive populations potentially exposed to fugitive dust. The identified on-site receptors include workers and students (high school age). The high school student receptor is assumed to be the most

sensitive on-site receptor. Chemical specific action levels developed to protect the student will also be protective of less sensitive receptors, such as the worker or visitors.

The equation and parameters that will be used in the calculations for the PCBs were provided by USEPA in an electronic mail dated January 22, 2015 and presented below. However, to be conservative, instead of assuming 1 kg/mg of PCBs, the maximum concentration of total PCBs (11.5 mg/kg) found in the pre-demolition sampling soil samples.

$$Cda = \frac{RfCd \text{ x } 1 \text{ x } E9}{Cca}$$

Cda = concentration of dust in air (µg/m$^3$)

RfCd = derived inhalation reference concentration (mg/m$^3$)

Cca = allowable PCB concentration (mg/kg); use maximum concentration detected (11.5 mg/kg)

$$RfCd = \frac{RfDo \text{ x } BW}{IR}$$

RfDo = oral reference dose (2 x 10$^{-5}$ mg/kg-day)

BW = body weight (56.8 kg for 11 to 16 years old age group; USEPA, 2011)

IR = inhalation rate (15.2 m$^3$/day for 11 to 16 years old age group; USEPA, 2011)

The calculated concentration of dust in air is 6,498 µg/m$^3$ (equivalent to 6.498 mg/m$^3$).

### 4.2 Perimeter Air Sampling Protocols

This section outlines protocols for perimeter air sampling for dust and PCBs.

Perimeter monitoring will include sampling for dust and PCBs during all activities associated with the removal of the existing cap and subsurface soil. Dust monitoring

will be conducted for the remaining grading activities; however, following the removal of the subsurface soil, airborne PCB monitoring will no longer be necessary.

Work will be temporarily halted and the USEPA will be consulted regarding a plan for further action, if a direct-reading instrument result is more than five times its Action Level. Temporarily halting work and consulting USEPA if a PCB is detected greater than five times its Action Level is considered appropriate based on methodology used by Agency for Toxic Substances and Disease Registry (ATSDR) for extrapolation of MRLs across exposure durations. Therefore, halting work before reaching 5-times the Action Level for a PCB is consistent with the ATSDR methodology for extrapolating potential adverse health effects resulting from exposure to PCBs over a longer duration.

#### 4.2.1 Meteorological Measurements

A meteorological station will be maintained at a location that is free from obstruction and generally representative of wind patterns present at the Site. The meteorological station will be placed at the upwind (eastern) air monitoring location.

Wind speed and wind direction measurements will be collected continuously at the Site during soil loading and grading activities. A wind sock will also be located at the Site.

If the sustained wind speed exceeds 15 mph (sustained for 15 minutes), work will be stopped.

#### 4.2.2 Air Monitoring Station Locations

The purpose of the air monitoring stations is to collect data from the most likely pathway for PCBs to migrate off site to locations where exposures to human receptors could occur. A total of three perimeter air monitoring stations will be located around the boundary of the proposed building in the vicinity of the active work areas. One station will be located upwind, one crosswind, and one station downwind.

There may be relatively high levels of chemicals and particulates in air due to the high number of large-scale industrial companies in the vicinity of the Site. Therefore, background dust level will be monitored at each of the four air monitoring stations for two days prior to implementing activities associated with the construction activities.

As discussed above, wind direction will be monitored during the construction activities where PCB emissions could occur. If the wind data indicate that a significant shift in wind direction has occurred, work will be suspended until the perimeter air monitoring stations can be repositioned, as appropriate.

#### 4.2.3 Air Monitoring Parameters

Real-time monitoring for total dust will be performed at the work areas and at the Site's perimeter.

It is anticipated that during highly inclement weather, the contractor will not be performing work at the Site. However, light precipitation may affect air monitoring results by biasing real-time total dust measurements high due to moisture in the air. In inclement weather the air monitoring plan may be modified in consultation with the USEPA to protect equipment and preserve the accuracy of monitoring results.

#### 4.2.4 Total Airborne Dust (Real-Time Air Monitoring)

Thermo Scientific ADR-1200S perimeter dust monitors will be used throughout the duration of the project. The ADR 1200S is designed for outdoor use and is capable of detecting concentrations ranging from 0.001 milligram per cubic meter ($mg/m^3$) to 400 $mg/m^3$ for a particle size response range of of 0.1 to 10 micron. Additionally, the ADR-1200S units will be programed to record dust concentrations every minute and will be connected to a cellular internet telemetry system to provide immediate information for total airborne dust levels present at the site perimeter station locations. The data collected will provide real-time information that will be used to evaluate the effectiveness of dust control procedures being implemented by the contractor. In addition, the total dust measurements provide data that can be used to evaluate potential PCB-specific airborne concentrations.

The monitors will be programed to sample and record readings every one-minute and they will be checked approximately every hour during the work shift to verify operation and compliance with the target Action Level. The airborne dust concentration will be recorded by a data logger and the stored data will be downloaded at the end of each work shift. The monitors will be factory calibrated and operated in accordance with the manufacturer's instructions.

Perimeter monitoring will include sampling for dust during all activities associated with the removal of the cap and subsurface soil. Dust monitoring will be conducted for the

remaining construction activities; however, following the removal of the cap and subsurface soil, PCB monitoring will no longer be necessary.

## 5. References

Agency for Toxic Substances and Disease Registry (ATSDR). 2004. Agency for Toxic Substances and Disease Registry, Division of Toxicology. Minimal Risk Levels (MRLs) for Hazardous Substances. December.

ARCADIS U.S., Inc. (ARCADIS). 2014a. Cap Modification Plan, Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California. October 17.

ARCADIS U.S., Inc. (ARCADIS). 2014b. Cap Modification Plan Addendum, Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California. December 3.

California Environmental Protection Agency Office of Environmental Health Hazards Assessment (OEHHA). 2009. California Cancer Potency Factors. July.

Department of Toxic Substances Control (DTSC). 1996. Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities Manual.

July. United States Environmental Protection Agency (USEPA). 2011. Exposure Factors Handbook: 2011 Edition. EPA/600/R-090/052F. U.S. Environmental Protection Agency, Office of Research and Development, Washington DC 20460. September.

sensitive on-site receptor. Chemical specific action levels developed to protect the student will also be protective of less sensitive receptors, such as the worker or visitors.

The equation and parameters that will be used in the calculations for the PCBs were provided by USEPA in an electronic mail dated January 22, 2015 and presented below. However, to be conservative, instead of assuming 1 kg/mg of PCBs, the maximum concentration of total PCBs (11.5 mg/kg) found in the pre-demolition sampling soil samples.

$$Cda = \frac{RfCd \times 1 \times E9}{Cca}$$

Cda = concentration of dust in air (µg/m$^3$)

RfCd = derived inhalation reference concentration (mg/m$^3$)

Cca = allowable PCB concentration (mg/kg); use maximum concentration detected (11.5 mg/kg)

$$RfCd = \frac{RfDo \times BW}{IR}$$

$\frac{2E-5 \times 56.8}{15.2} =$

RfDo = oral reference dose (2 x 10$^{-5}$ mg/kg-day)

BW = body weight (56.8 kg for 11 to 16 years old age group; USEPA, 2011)

IR = inhalation rate (15.2 m$^3$/day for 11 to 16 years old age group; USEPA, 2011)

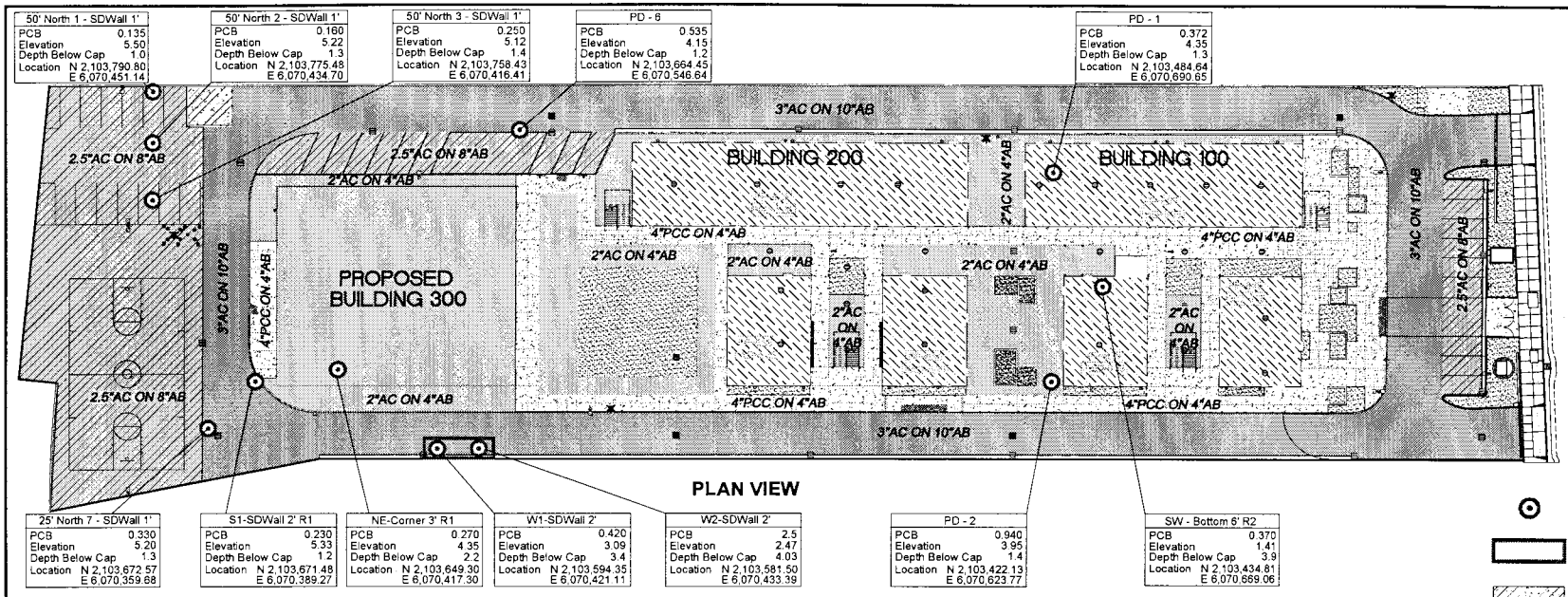
The calculated concentration of dust in air is 6,498 µg/m$^3$ (equivalent to 6.498 mg/m$^3$). round to 6 mg/m³

### 4.2 Perimeter Air Sampling Protocols

This section outlines protocols for perimeter air sampling for dust and PCBs.

Perimeter monitoring will include sampling for dust and PCBs during all activities associated with the removal of the existing cap and subsurface soil. Dust monitoring

continuous not "every minute" with alarm



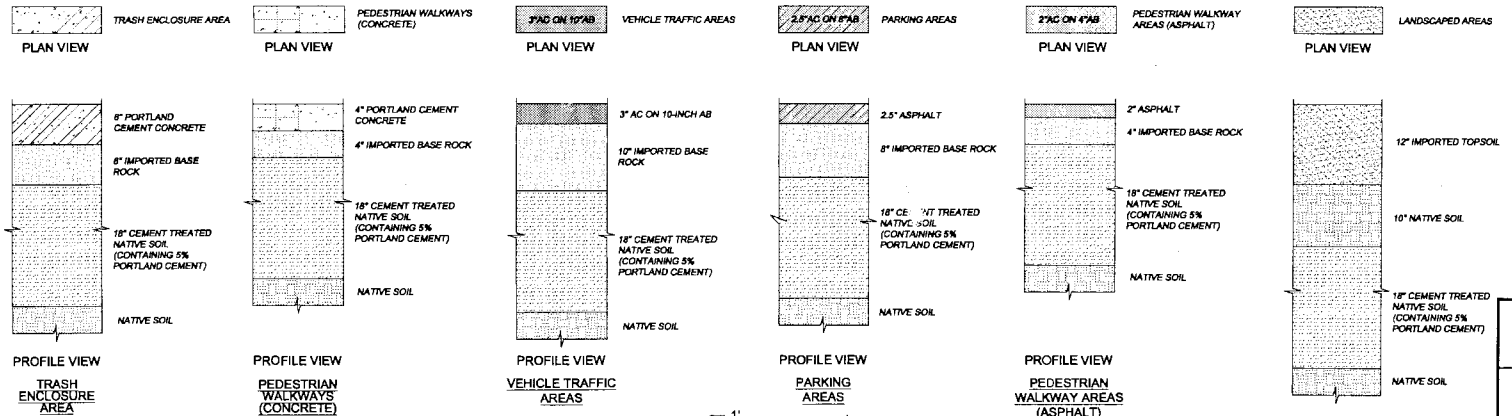

## PLAN VIEW

## LEGEND

- SOIL SAMPLE FAILED POLYCHLORINATED BIPHENYLS (PCB) CRITERIA OF 0.130 mg/kg
- LOCATION OF PCB AFFECTED SOIL ENCAPSULATED FROM APPROXIMATELY 3 TO 8 FEET BELOW FINISHED GRADE
- EXISTING CONCRETE SLAB (6" REINFORCED PCC ON 6" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
- EXISTING CONCRETE SLAB (4" REINFORCED PCC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (90%)) PER GEOTECHNICAL REPORT
- 3"AC ON 10"AB — EXISTING AC PAVEMENT-TRAFFIC SECTION (3" AC ON 10" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
- 2.5"AC ON 8"AB — EXISTING AC PAVEMENT-PARKING SECTION (2.5" AC ON 8" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%))
- 2"AC ON 4"AB — EXISTING AC PAVEMENT-PEDESTRIAN SECTION (2" AC ON 4" CLASS 2 AB ON 6" RECOMPACTED SUBGRADE (95%)) PER GEOTECHNICAL REPORT
- LANDSCAPING: 12" TOP SOIL OVER 10" CAP OF IMPORTED SOIL COMPACT CAP TO 90%. ORANGE WARNING NETTING UNDERNEATH CAP.
- RAT SLAB UNDERNEATH ALL MODULAR BUILDINGS: 2"AC ON 4" CLASS 2 AB

mg/kg = MILLIGRAMS PER KILOGRAM

## EXISTING PAVEMENT/CAP DETAILS




SOURCES: UNDERWOOD & ROSENBLUM, INC.
K2A ARCHITECTURE + INTERIORS
GRADING AND PAVING PLANS

PROPOSED CHARTER SCHOOL SITE
1009 66TH AVENUE, OAKLAND, CALIFORNIA

**SITE PLAN**
**EXISTING PAVEMENT/CAP**

ARCADIS

FIGURE 2

CITY: EMERYVILLE CA DIV/GROUP: ENVCAD DB: A. REYES, J. HARRIS
C:\Users\jharris\Desktop\ENVCAD\RETURN-TO\EMERYVILLE CA\EM0051550017\70000\HCA\PDWG\EM0051550 804.dwg LAYOUT: 2 SAVED: 10/14/2014 12:11 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 10/17/2014 12:02 PM BY: HARRIS, JESSICA

ALAMEDA COUNTY
**HEALTH CARE SERVICES**
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 5, 2015

Stephen Boyd
Pacific Electric Motor Company
137 Fiesta Circle
Orinda, CA 94563-4350

Mala Batra
Aspire Public Schools
1001 22nd Avenue, Suite 100
Oakland, CA 94606
(*Sent via E-mail to: Mala.Batra@aspirepublicschools.org*)

Richard R. Anderson
Modad Properties, LLC
561 4th Street
Oakland, CA 94607-3558

Subject: Review and Conditional Approval of Revised Building 300 Construction Air Monitoring Plan for Fuel Leak Case No. RO0000411 and GeoTracker Global ID T0600101950, Pacific Electric Motors, 1009 66th Avenue, Oakland, CA 94621

Dear Responsible Parties:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the recently submitted document entitled, "*Revised Building 300 Construction Air Monitoring Plan, Former Pacific Electric Motors Site, 1009 66th Avenue, Oakland, California*" dated March 5, 2015 (Revised Air Monitoring Plan). The Revised Air Monitoring Plan, which was prepared on your behalf by ARCADIS, presents plans for dust suppression and air monitoring during construction of the school gymnasium (Building 300). During construction of the proposed gymnasium building, measures must be taken to prevent exposure to soil, dust, and fugitive emissions from grading and excavation activities.

ACEH has no objections at this time to construction of Building 300 utilizing the March 5, 2015 Revised Air Monitoring Plan provided that the conditions described in the Technical Comments below are incorporated during implementation of the Revised Air Monitoring Plan. This conditional approval does not cover issues that are directly or solely related to PCBs which are being addressed under regulatory oversight of the U.S. Environmental Protection Agency nor does it relieve you from compliance with other federal, state, and local regulations and permits.

## TECHNICAL COMMENTS

1. **Locations of Air Monitoring Locations.** We request that the upwind monitoring location be positioned beyond the perimeter of the working area to the extent feasible to provide information on dust levels coming onto the site from other sources. Therefore, the upwind dust monitor should be positioned beyond the working area to minimize the effects of site work on the upwind location. The upwind and downwind monitoring locations are to be moved as wind directions change.

2. **Daily Action Level.** We request that the daily action level for dust of 0.05 milligrams per cubic meter be applied over an eight hour working period.

3. **Visible Dust.** We request that observations of visible dust also be used as an action level for dust suppression activities. If visible dust is observed in the work area but not outside the site perimeter, dust suppression activities are to be increased. If visible dust is observed moving off-site, the specific source of the emissions is to be shut down and more aggressive dust suppression measures implemented. After the more aggressive dust suppression measures have been implemented, operations at the source of the emissions may be resumed with observations to verify that the suppression measures were successful.

4. **Inactive Periods.** If visible dust is observed originating from exposed surfaces at the site during non-working periods such as nights and weekends, dust suppression activities are to be conducted as soon as practicable but no later than 6 hours after the observation. A sign that identifies a Designated Person who can be contacted by telephone during non-working hours for dust control is to be posted in an easily visible location at the site.

5. **Watering of Exposed Surfaces.** Appendix C of the Revised Air Monitoring Plan currently presents a recommended guideline specifying that exposed surfaces be wetted two times per day. We request that exposed surfaces be wetted a minimum of three times per eight hour working period.

6. **High-pressure Air.** We request that the use of high-pressure air for cleaning surfaces such as concrete forms be avoided.

7. **Reporting.** Please report exceedances of the daily action level to the regulatory agencies within 24 hours of their occurrence.

## TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Jerry Wickham), and to the State Water Resources Control Board's GeoTracker website according to the following schedule and file-naming convention:

- **March 20, 2015** – Building 300 Vapor and Indoor Air Monitoring Plan
  File to be named: WP_R_yyyy-mm-dd RO0411

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org. Online case files are available for review at the following website: http://www.acgov.org/aceh/index.htm.

Sincerely,

Jerry Wickham

Digitally signed by Jerry Wickham
DN: cn=Jerry Wickham, o=Alameda County Environmental Health, ou, email=jerry.wickham@acgov.org, c=US
Date: 2015.03.05 18:58:06 -08'00'

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachments: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Carmen Santos, USEPA Region 9 (LND-4-1), 75 Hawthorne Street, San Francisco, CA 94105, (*Sent via E-mail to: santos.carmen@epa.gov*

Tim Simon, Aspire Public Schools (*Sent via E-mail to: Tim.Simon@aspirepublicschools.org*)

Erica Kalve, ARCADIS, 100 Smith Ranch Road, Suite 329, San Rafael, CA 94903 (*Sent via E-mail to: Erica.Kalve@arcadis-us.com)*

Tracy Craig (*Sent via E-mail to: tracy@craig-communications.com*

Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)
GeoTracker, eFile

**Attachment 1**

**Responsible Party(ies) Legal Requirements / Obligations**

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

| Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) | **REVISION DATE:** May 15, 2014 |
|---|---|
| | **ISSUE DATE:** July 5, 2005 |
| | **PREVIOUS REVISIONS:** October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010 |
| **SECTION:** Miscellaneous Administrative Topics & Procedures | **SUBJECT:** Electronic Report Upload (ftp) Instructions |

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

**REQUIREMENTS**

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

**Submission Instructions**

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
**REGION IX**
**75 Hawthorne Street**
**San Francisco, CA 94105**

Via U.S. Postal Service and Electronic Mail
Certified Mail Receipt No. 7008 1830 0002 6279 5325
Return Receipt Requested

April 5, 2011

Mr. Mike Barr
Aspire Public Schools
1001 22nd Avenue, Suite 100
Oakland, CA 94606

**Re: Aspire Public School, 1009 66th Avenue, Oakland, California – USEPA November 13, 2009 Approval of Polychlorinated Biphenyls' Cleanup Notification Under Toxic Substances Control Act – Request for Cap Modification**

Dear Mr. Barr:

We appreciate Ron Goloubow's (Arcadis) March 31, 2011 letter[1] requesting on behalf of College for Certain, LLC a modification to the cap for soils contaminated with polychlorinated biphenyls (PCBs) required under the Toxic Substances Control Act (TSCA) regulations in 40 CFR 761.61(a)(7). On November 13, 2009, the U.S. Environmental Protection Agency, Region 9 (USEPA) approved with conditions the October 23, 2009 *"Toxic Substances Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California"* (Notification) prepared by Arcadis for Aspire Public Schools. That approval under 40 CFR 761.61(a) (self-implementing PCB cleanup) requires a cap be constructed at the entire Aspire site consistent with the requirements in 40 CFR 761.61(a)(7) for a concrete cap. Such a cap is required to be 6 inches thick.

In the attached letter, Arcadis is proposing a modified design for the rat slabs over which the schools modular buildings will be installed. These modified rat slabs are proposed as an alternate cap design for the portion of the site where the modular buildings will be located and such proposed cap differs from the concrete cap required in 40 CFR 761.61(a)(7). The proposed alternate cap (modified rat slab) is a 6-inch-layered cap that will be constructed atop 18-inches of cement-treated native soil contaminated with residual PCB levels. The 18-inch soil layer is underlain by native soils. The proposed alternate cap consists of a 4-inch thick layer of imported base rock atop the 18-inch cement treated soils and a 2-inch thick Portland cement concrete layer atop the base rock layer.

The purpose of the cap is to prevent exposure of human and ecological receptors to soils with residual PCB contamination. The 6-inch concrete cap approved on November 13, 2009 is a mitigation measure for soils at the site with residual PCB levels of 0.13 mg/kg (cleanup level) and levels of PCBs below 3 mg/kg in two specific areas of the site where the cleanup level could not be achieved. The modified cap will prevent receptor exposure

[1] Letter from Ron Goloubow (Arcadis) dated March 31, 2011 (Subject: "Proposed Toxic Substances Control (TSCA) Cap for Modular Buildings – Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California") to Carmen Santos (USEPA Region 9).

to residual PCBs in soils since all soils at the Aspire site will be capped and no soils will be left exposed. Rain water infiltration should be minimal through the upper 2-inch concrete layer of the cap.

We are approving the proposed design for the alternate cap (modified rat slab) under the TSCA regulations in 40 CFR 761.61(c) (risk-based cleanup option). We believe this alternate cap is still protective of human health and the environment provided that required maintenance and repairs are conducted as required in Condition 9 of the November 13, 2009 approval. The rat slab is a portion of the site-wide cap required for the Aspire site in USEPA's November 13, 2009 conditional approval of the October 23, 2009 Notification of PCB cleanup at the Aspire site. This approval modifies a portion of the site-wide cap required in Condition 8 of USEPA's November 13, 2009 letter. This approval does not modify Condition 9 in USEPA's November 13, 2009 Notification approval that requires maintenance and repair of the cap in perpetuity. The requirements in Condition 9 are equivalent and consistent with the requirements in 40 CFR 761.61(a)(8).

We look forward to being of assistance to College for Certain LLC during implementation of the work remaining in the Notification as modified by the conditions of approval, construction of the rat slab, and review of future modifications that College for Certain, LLC may propose to portions of the cap not addressed in this modification of USEPA's November 13, 2009 approval letter. Please call Carmen Santos of my staff at 415.972.3360 if you have any questions concerning this letter.

Sincerely,

Arlene Kabei

for Jeff Scott, Director
Waste Management Division

Enclosures (1)

Cc: Ron Goloubow, Arcadis
Michael Rueda, Pacific Charter School Development
Arlene Kabei, USEPA R9
Steve Armann, USEPA R9
Carmen Santos, USEPA R9

ARCADIS

*Infrastructure, environment, buildings*

ARCADIS U.S., Inc.
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Tel 510.652.4500
Fax 510.652.4906
www.arcadis-us.com

Ms. Carmen Santos
U.S. Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

*sent via email only*

Environmental

Subject:
Proposed Toxic Substance Control Act (TSCA) Cap for Modular Buildings – Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California

Date:
March 31, 2011

Contact:
Ron Goloubow

Phone:
510.596.9550

E-mail:
ron.goloubow@arcadis-us.com

Our ref:
EM009155.0010.00001

Dear Ms. Santos:

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this letter to provide the revised details regarding the design of the Toxic Substance Control Act (TSCA) Cap for Modular Buildings to be installed under the Modular Buildings to be installed at 1009 66th Avenue in Oakland, California ("the Site"; Figures 1, 2, and 3). This area under the Modular Buildings has been referred to as the "rat slab".

As we have been discussing the rat slab will serve as the TSCA Cap beneath the modular buildings to eliminate the potential exposure pathway to soil that may contain polychlorinated biphenyls (PCBs) at the Site.

**Proposed Rat Slab Design**

The details regarding the proposed design for the rat slabs is illustrated on hand drawn Figure 3. Figure 2 provides a summary of the design for the proposed rat slabs as well as the revised TSCA cap for the other portions of the Site. The locations of the modular buildings, also described as relocatable buildings are presorted on Figure 2. ARCADIS will provide a request to approve the revised TSCA cap for the other portions of the Site under separate cover.

As discussed between representatives of ARCADIS and U.S.EPA on March 29 and 31, 2011 the proposed TSCA Cap design for the rat slabs will be comprised as follows (from the bottom up):

- Native soil
- 18 - Inches of cement treated native soil
- 4- Inches of imported aggregate base rock and
- 2- Inches of Portland cement concrete

**Closing**

Blackwell Construction (on behalf of CFC) is in the process of installing the modular (relocatable) buildings and needs to finalize the design of the rat slabs by Friday, April 1, 2011. ARCADIS will contact representatives of U.S. EPA April 1, 2011 to determine if the design provided in this letter is acceptable. We at ARCADIS appreciate working with you and your team and look forward to bringing this project to closure with the U.S. EPA in the near future.

Sincerely,

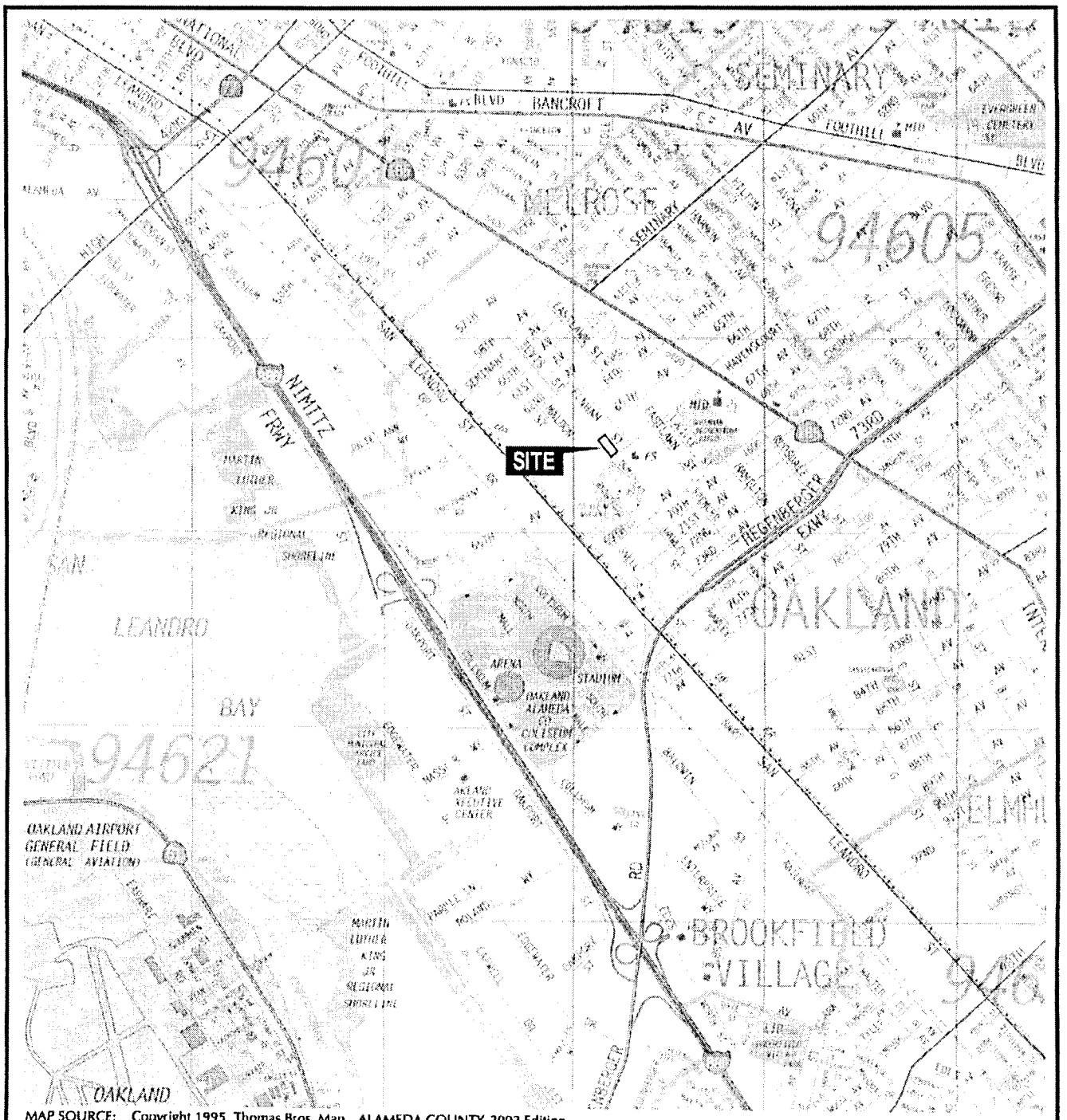
ARCADIS U.S., Inc.

Ron Goloubow, P.G.
Principal Geologist

Copies:
Mike Rueda – Pacific Charter Schools
Brad Kettle – Blackwell Construction

Enclosures:

Figure 1 – Site Vicinity Map
Figure 2 – Site Plan
Figure 3 – Rat Slab Design (hand drawn map)




MAP SOURCE: Copyright 1995, Thomas Bros. Map ALAMEDA COUNTY 2002 Edition

0 2,000 4,000 FEET

1009 66TH AVENUE, OAKLAND, CALIFORNIA

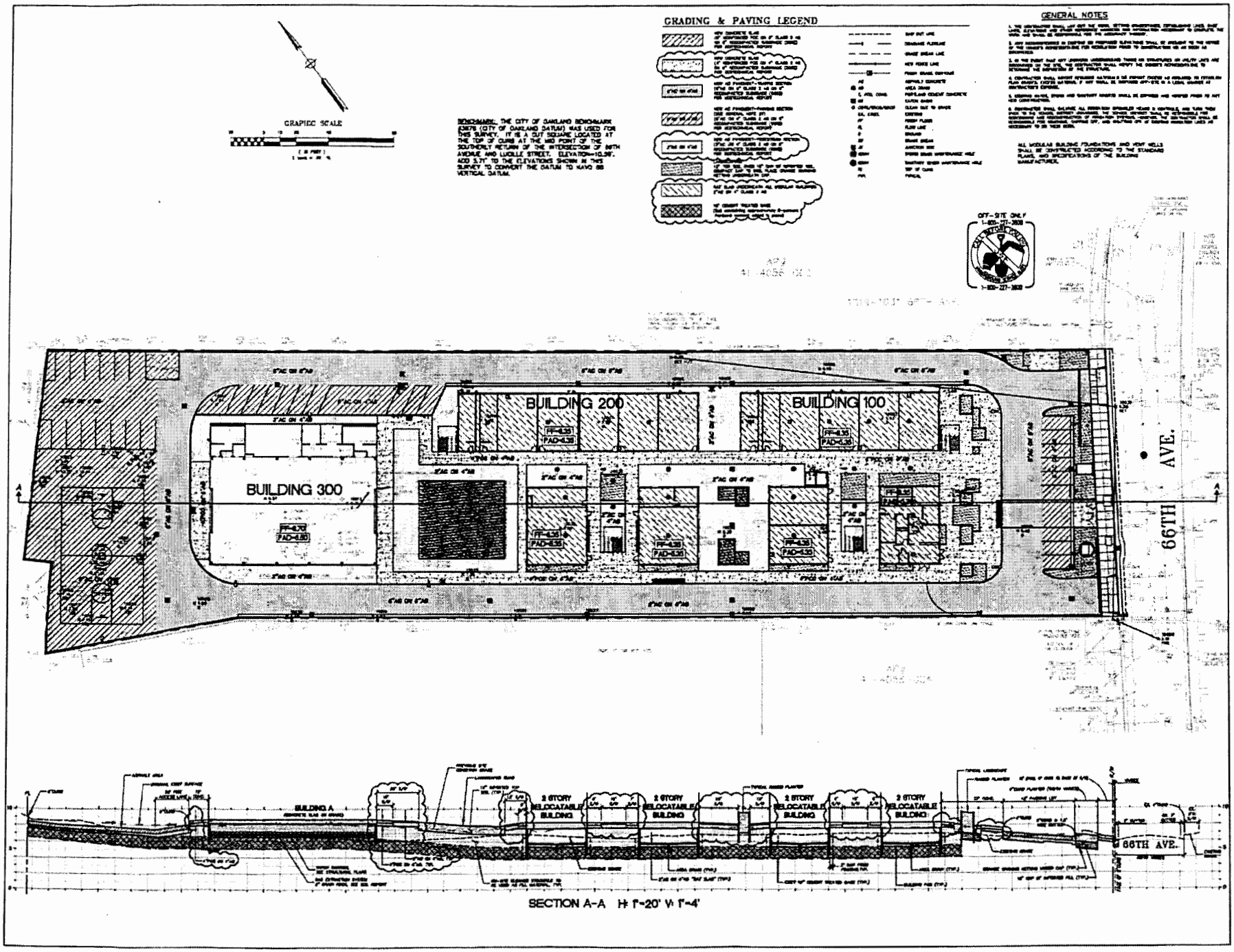
**SITE VICINITY MAP**

ARCADIS

FIGURE 1

DESIGN\003\091555\Figure 1 Site Vicinity - 003-091555.cdr

Imagine the result




K2A
ARCHITECTURE + INTERIORS

Client
College for Certain, LLC

Project Name
Aspire 66th Ave

Consultants

Sheet Name
PAVING PLAN

Approval Stamp

Revisions
FOR EPA REVIEW
03-23-2011

Sheet Information
Drawing Scale: 1"=20'
Drawn By: VQ/MM

Project Information
Date: 06/29/2010
Status: Int.1 Permit Sub.
Project Number: 1006

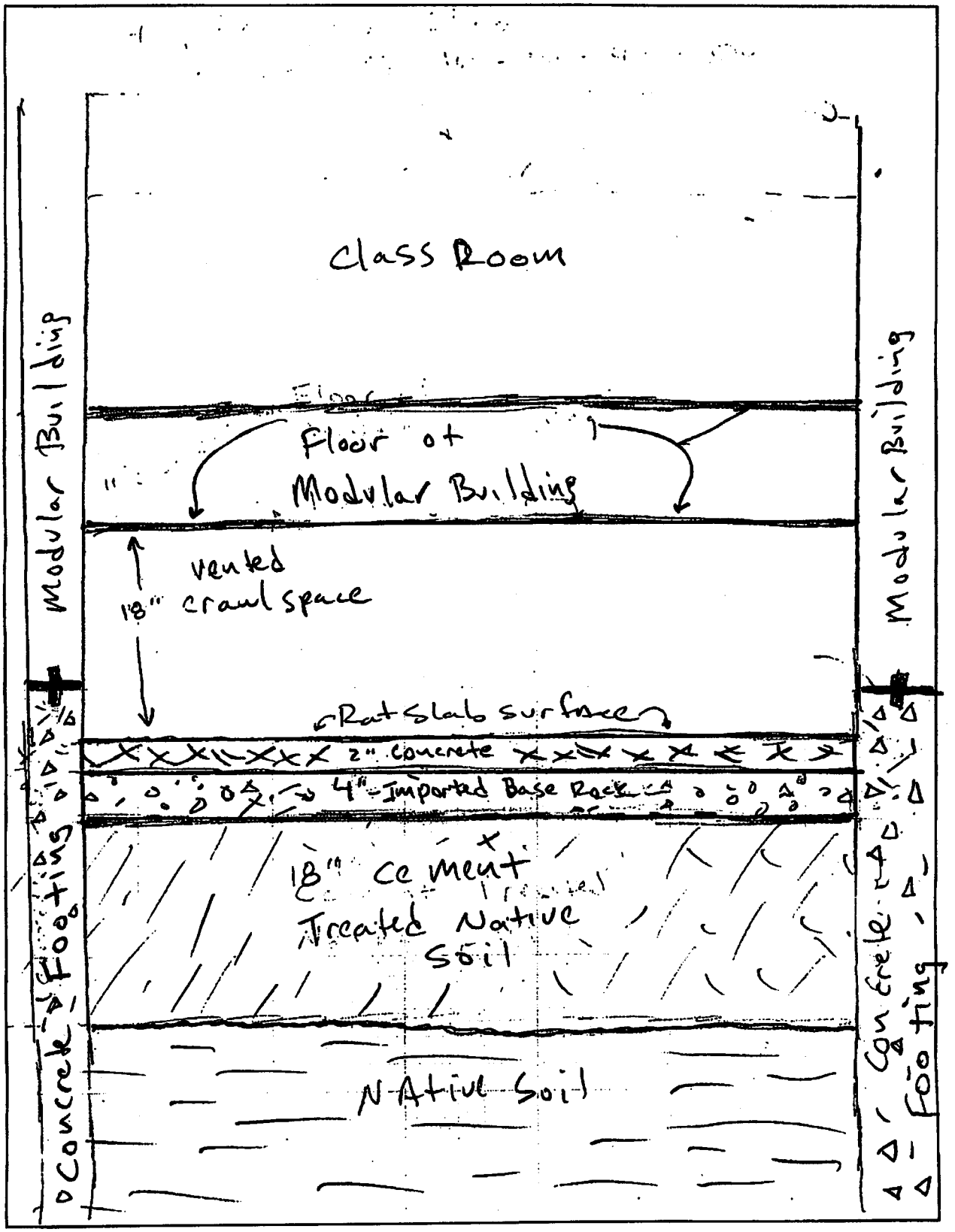
Sheet
1-C3.0

ARCADIS

SUBJECT: Aspire - TSCA CAP
Rat Slab Design
JOB NO: For Modular Buildings

BY: RONG DATE: 3/31/11
CHKD: DATE:
Figure 3

PAGE 1
SHEET 1/1




AGM Form S0 12-01

ARCADIS

*Infrastructure, environment, buildings*

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Emeryville, CA 94608
Tel 510.652.4500
Fax 510.652.4906
**www.arcadis-us.com**

Ms. Carmen Santos
U.S. Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

Environmental

Subject:
Draft Addendum - PCB Cleanup Completion Report, 1009 66th Avenue, Oakland, California

Date: June 29, 2012

Contact:
Ron Goloubow

Phone:
510.596.9550

E-mail:
ron.goloubow@arcadis-us.com

Our ref:
EM009155.00010

Dear Ms. Santos:

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared the enclosed report to provide additional information regarding the remediation of soil containing polychlorinated biphenyls (PCBs) at the Former Pacific Electric Motors Facility located at 1009 66th Avenue in Oakland, California. Per my email message on June 29, 2012 the following are enclosed for your review:

- Compact Disc containing Text, Figures, and Attachments
- Paper Copies of Figures 1 through 7

Please contact me if you have any questions or need any more information..

Sincerely,

ARCADIS U.S., Inc.

Ron Goloubow, P.G.
Senior Associate Geologist

August 14, 2012
Complete review of ASPIRE Addendum.

Enclosures:
CD
Paper copies of Figures 1-7

September 14, 2012
→

Imagine the result

ARCADIS

*Infrastructure, environment, buildings*

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**www.arcadis-us.com**

ENVIRONMENT

Ms. Carmen Santos
U.S. Environmental Protection Agency, Region 9
Mail Code WST-5
75 Hawthorne Street
San Francisco, California 94105

Subject:
DRAFT Addendum - PCB Cleanup Completion Report, College for Certain, 1009 66th Avenue, Oakland, California

Date:
June 29, 2012

Contact:
Ron Goloubow

Phone:
510.596.9550

E-mail:
ron.goloubow@arcadis-us.com

Our ref:
EM009155.0009.00002

Dear Ms. Santos:

On behalf of College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this report to provide additional information regarding the remediation of soil containing polychlorinated biphenyls (PCBs) at the Former Pacific Electric Motors Facility located at 1009 66th Avenue in Oakland, California (Site; Figures 1 and 2). The majority of the environmental work conducted was conducted by LFR Inc. (LFR), on behalf of CFC. LFR was purchased by ARCADIS in December 2008 and became fully integrated into ARCADIS in January 2010.

The remedial tasks conducted at the Site were completed in accordance with 40 Code of Federal Regulations (CFR) §761.125(c)(5) that describes the implementation of the Toxic Substances Control Act (TSCA) Self-Implementing Cleanup Plan (SICP). The scope of work for the SICP was presented in a letter from LFR to the U.S. Environmental Protection Agency (U.S. EPA), dated October 23, 2009 and prepared for Aspire Public Schools (Aspire; LFR 2009c). ARCADIS submitted a report entitled "Implementation of the Toxic Substances Control Act Self-Implementing Cleanup Notification at the Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California" on August 12, 2011 (Implementation Report; ARCADIS 2011b). The Implementation Report documented the remedial actions that took place as outlined in the SICP.

Following the submittal of the Implementation Report, additional remedial tasks associated with the SICP were conducted at the Site as part of the redevelopment of the Site from November 2010 to August 2011. In addition, ARCADIS prepared and submitted a draft Operations and Maintenance Plan (O&M Plan) and deed notice for the Site in October 2011. Following review of these draft documents, the U.S. EPA requested the following information to document the additional remedial tasks that were completed at the Site:

- Summary of additional remedial actions conducted following the submittal of the Implementation Report;
- Summary of mitigation measures;
- Soil sample laboratory analytical data (Attachment 1);
- Revised health risk screening calculations (Attachment 2);
- Fill material source information and laboratory analytical data (Attachment 3);
- Waste disposal information (Attachment 4); and
- Revised figures showing:
  - Details regarding the surface cap, the landscaped areas, and the redevelop plan (Figure 3);
  - Survey coordinates for the location of soils beneath the cap containing PCBs above the cleanup level (Figure 3); and
  - Areas where cleanup levels were achieved, where the cleanup levels were not achieved, and where soils contaminated with PCBs above the cleanup level were encapsulated (Figure 4).

Therefore, this report, along with the Implementation Report, provides a comprehensive summary of the SICP.

**Additional Remedial Actions Conducted at the Site after the Submittal of the Implementation Report**

Post-demolition surface soil samples (PD-1 to PD-7) were collected in May 2010 within the footprint of the two buildings that were demolished at the Site (see Figure 3). The samples were analyzed for PCBs. As indicated in the table below, six of the post-demolition surface soil samples contained PCBs at concentrations that exceeded the site-specific cleanup goal of 0.130 milligrams per kilogram (mg/kg). Laboratory reports for these samples are included as Attachment 1 to this letter. As requested by U.S. EPA, Figure 3 illustrates the locations of the samples collected at

the Site that contained concentrations of PCBs greater than and less that the site-specific cleanup goal.

**Post-Demolition Surface Soil Samples**
*concentrations in mg/kg*

| Sample ID | Notes | Date | PCBs |
|---|---|---|---|
| PD-1 | 1 | 05/28/10 | **0.372** |
| PD-2 | 1 | 05/28/10 | **0.940** |
| PD-3 | 1 | 05/28/10 | **0.344** |
| PD-4 | 1 | 05/28/10 | **0.321** |
| PD-5 | 1 | 05/28/10 | **0.209** |
| PD-6 | 1 | 05/28/10 | **0.535** |
| PD-7 | | 05/28/10 | 0.100 |
| **REGULATORY CONCENTRATIONS** | | | |
| Soil Cleanup Goal | | | 0.130 |

**Notes:**

1 - Concentrations of PCBs are reported as a combination of Aroclor 1254 and 1260.

Samples analyzed by Curtis & Tompkins Ltd. for PCBs using EPA Test Method 8082.

Initially, soil represented by these post-demolition surface soil samples was to remain in place. However, in order to accommodate the redevelopment of the Site, soil in the vicinity of three of the sample locations (PD-3, PD-4, and PD-5) required excavation. As described in the letter from ARCADIS to U.S. EPA dated September 15, 2010 (ARCADIS 2010b), instead of hauling this excavated soil to a landfill for disposal, the soil that was excavated at these locations was encapsulated within the area of excavation titled PCB EXC-3 (see Figure 3). As requested by U.S. EPA, the excavated soil was placed in Geotextile fabric and placed approximately 3 feet below grade at excavation area PCB EXC-3. A total of approximately 20 to 25 cubic yards of soil from the three areas was encapsulated.

An area measuring approximately 10 feet long by 10 feet wide by 2 feet below grade was excavated at each of the three locations (PD-3, PD-4, and PD-5; see Figure 3). In accordance with the methods provided in the SICP, confirmation soil samples were collected from the sidewalls and the base of each excavation (a total of five soil samples from each area) and analyzed for PCBs (see Figure 3). The analytical results for these samples are provided in the following table. As indicated, PCBs were not detected in these confirmation soil samples at concentrations above the

site-specific cleanup goal. Laboratory reports for these samples are included as Attachment 1 to this letter.

**Post-Demolition Excavation Confirmation Soil Samples**
*concentrations in mg/kg*

| Sample ID | Notes | Date | PCBs |
|---|---|---|---|
| PD3-EXC-NORTH 2' | | 10/27/10 | <0.012 |
| PD3-EXC-SOUTH 2' | | 10/27/10 | <0.012 |
| PD3-EXC-EAST 2' | | 10/27/10 | <0.012 |
| PD3-EXC-WEST 2' | | 10/27/10 | <0.012 |
| PD3-EXC-BOTTOM 2' | | 10/27/10 | <0.012 |
| | | | |
| PD4-EXC-NORTH 2' | | 10/27/10 | <0.012 |
| PD4-EXC-SOUTH 2' | | 10/27/10 | <0.012 |
| PD4-EXC-EAST 2' | | 10/27/10 | 0.016 |
| PD4-EXC-WEST 2' | | 10/27/10 | <0.012 |
| PD4-EXC-BOTTOM 2' | 1 | 10/27/10 | 0.063 |
| | | | |
| PD5-EXC-NORTH 2' | | 10/27/10 | <0.012 |
| PD5-EXC-SOUTH 2' | | 10/27/10 | <0.012 |
| PD5-EXC-EAST 2' | | 10/27/10 | <0.012 |
| PD5-EXC-WEST 2' | | 10/27/10 | 0.030 |
| PD5-EXC-BOTTOM 2' | | 10/27/10 | 0.025 |
| **REGULATORY CONCENTRATIONS** | | | |
| Soil Cleanup Goal | | | 0.130 |

**Notes:**

1 - Concentrations of PCBs are reported as a combination of Aroclor 1254 and 1260.

Samples analyzed by TestAmerica Laboratories Inc. for PCBs using EPA Test Method 8082.

**Revised Health Risk Screening Calculations**

U.S. EPA requested that the analytical results for the 15 excavation confirmation soil samples collected in October 2010 be included in the health risk screening calculations conducted for the Site. The revised spreadsheets that were used to calculate the revised 95% upper confidence limit (UCL) and the Estimated Risk Based on Representative Concentrations are provided in Attachment 2 of this letter. As indicated, the revised 95% UCL for the concentration of PCBs remaining in place is 0.167 mg/kg and the estimated risk associated with this concentration is $1.3 \times 10^{-6}$ and the estimated hazard index (HI) for PCBs in soil is 1.3.

As provided in the Implementation Report, a human health risk screen was performed considering the soil that was left in place after the removal actions in the 0 to 2 feet below ground surface interval. This included analytical data for soil samples collected during the site characterization activities and post-removal confirmation soil sampling events. Data associated with soil that was removed from the Site (i.e., excavated, transported, and disposed of off-site) were removed from the data set. Therefore, the data set consists of only data associated with soils remaining on-site. A list of the PCB in-place soil samples used for this evaluation is presented in Attachment 2.

Exposure point concentrations (EPCs) of the post-removal constituents of concern (COCs) were used to perform the human health risk screen. The EPCs for the selected COCs were compared to Recommended Cleanup Goals presented in the Revised Corrective Action Plan (CAP; LFR 2009a). The U.S. EPA software ProUCL Version 4.00.05 was used to perform the statistical evaluation. EPCs were calculated for COCs with a minimum of six detections. Maximum detected concentrations were used for COCs with fewer than six detections.

Details on the statistical evaluation and representative concentrations are included in Attachment 2 to this letter.

**Health Risk Screen**

Comparisons were performed as follows for carcinogenic compounds:

$$\text{RiskEPC} = \frac{EPC_{soil} \times T_{Risk}}{CUG}$$

Where:

RiskEPC = estimated risk for COC (target = $10^{-6}$)
$EPC_{soil}$ = exposure point concentration for soil
$T_{Risk}$ = target risk used for the CUG calculation ($10^{-6}$)
CUG = cleanup goal presented for the COCs in CAP

Comparisons were performed as follows for non-carcinogenic compounds:

$$\text{HazardEPC} = \frac{EPC_{soil}}{CUG}$$

Where:

Hazard EPC = estimated risk for Site (target = 1)
$EPC_{soil}$ = exposure point concentration for soil
CUG = cleanup goal presented for the COCs in CAP

The estimated risk based on the screen is $1.3 \times 10^{-6}$. PCBs are the only in-place COCs with an estimated risk greater than $1 \times 10^{-6}$. The estimated HI is 1.3. PCBs are the only in-place COCs with an estimated HI greater than 1.

**Mitigation Measures**

This section of the letter provides a summary of the mitigation measures that have been implemented at the Site.

**TSCA Cap**

In accordance with a letter from the U.S. EPA to CFC dated June 16, 2011 (U.S. EPA 2011), the PCB-affected soil has been mitigated by installing a "modified TSCA cap" across the Site. Figure 3 is a map that illustrates the redevelopment plan for the property, the modified TSCA cap, and the locations of the soil samples that failed the cleanup criteria for PCBs. Figure 4 is a map that illustrates all in-place PCB soil samples. Figures 5A, 5B, and 5C illustrate in-place PCB soil samples for each area of the Site, in greater detail.

The cap has been installed at the Site as described below (from the bottom up to the ground surface).

**Trash Enclosure Area**

- Native soil
- 18 inches of cement-treated native soil
- 6 inches of imported aggregate base rock
- 6 inches of Portland cement concrete

**Pedestrian Walkway Areas - Concrete**

- Native soil
- 18 inches of cement-treated native soil
- 4 inches of imported aggregate base rock
- 4 inches of Portland cement concrete

**Vehicle Traffic Areas**

- Native soil
- 18 inches of cement-treated native soil
- 10 inches of imported aggregate base rock
- 3 inches of asphalt concrete

**Parking Areas**

- Native soil
- 18 inches of cement-treated native soil
- 8 inches of imported aggregate base rock

- 2.5 inches of asphalt concrete

**Pedestrian Walkway Areas - Asphalt**

- Native soil
- 18 inches of cement-treated native soil
- 4 inches of imported aggregate base rock
- 2 inches of asphalt concrete

**Landscaped Areas**

- Native soil
- 18 inches of cement-treated native soil
- 10 inches of native soil
- 12 inches of imported top soil

As requested by U.S. EPA, samples of the imported soil to be used in the landscaped areas were collected and analyzed in accordance with the Soil Sampling Plan for imported soil for landscaping, dated June 24, 2011 (ARCADIS 2011a). According to information provided by the general contractor, the soil used in the landscaped areas was imported to the Site from West Coast Sand and Gravel from R&B Materials Supply located in Manteca, California.

Two soil samples and one duplicate soil sample of the imported soil were collected and analyzed for PCBs, lead, arsenic, total petroleum hydrocarbons as gasoline (TPHg), and benzene on August 4, 2011. The analytical results for these samples are provided in the laboratory report that is included as Attachment 3. Lead and arsenic were detected in each of the three soil samples and PCBs were detected in one sample at 0.024 mg/kg. TPHg and benzene were not detected at concentrations above the laboratory reporting limit (see Attachment 3). The results of these analyses indicated that the concentrations of lead, arsenic, and PCBs detected in the soil samples were less than the cleanup goals established for the Site and the soil was imported to the Site.

**TSCA Cap Inspection**

The TSCA cap will be visually inspected annually for cracks or differential settlement. The inspection procedures are described in detail in the draft O&M Plan and deed notice for the Site dated October 2011. The inspections will be conducted by a California-licensed Engineer or Geologist. The results of the inspections will be documented in a brief summary letter that will include photographs and a map. The letters will be transmitted to the U.S. EPA for review and comment.

All identified cracks or settlements will be repaired by a California-licensed General Engineering Contractor to provide equipment and experienced personnel to conduct the excavation work. The personnel will have the appropriate Occupational Safety and Health Administration (OSHA) training for sites with affected soil and groundwater (HAZWOPER). Repair activities will be directed by individuals working under the direct supervision of a California Professional Geologist or Professional Engineer. Soil generated through the repair activities will be handled in accordance with the soil management plan that was included in the grading plan for this project. The repairs will be documented in a brief summary letter that will include photographs and a map.

**PCB-Affected Soils and Materials Disposal**

Because this Site contained PCB-affected soil in several locations at concentrations greater than 50 mg/kg, the U.S. EPA was included to provide regulatory oversight for the TSCA issues related to the PCB-affected soil. Specifically, samples collected from the following areas contained concentrations greater than 50 mg/kg: excavation EXC-PCB1 and the area near the excavation that took place in 1992 (within excavation EXC4). The removal action for the PCB-affected soil was documented in the letter report dated August 12, 2010 (ARCADIS 2010a).

The final extent of each excavation at the Site was determined by a combination of site-representative concentrations (95% UCL of residual concentrations). The original expected total volume of known affected soil to be excavated was approximately 1,250 in-place cubic yards. The results of the confirmation soil samples collected from excavation areas EXC1, EXC2, EXC4, PCB-EXC1, PCB-EXC2, PCB-EXC3, and PCB-EXC4 resulted in a significant increase in the volume of soil that was removed from the Site. A total of approximately 8,400 tons of soil was removed from the Site.

The excavated soil from the Site was staged on-site in stockpiles pending characterization for disposal; soil from excavation EXC-PCB1 and the area near the excavation that took place in 1992 (within excavation EXC4) were combined. This soil was transported and disposed of as PCB Remediation Waste at Waste Management's Kettleman Hills Landfill. The soil from excavations EXC-PCB2, EXC-PCB3, EXC-PCB4, and EXC4 were transported and disposed of at Republic Services Keller Canyon Landfill located in Pittsburg, California. Due to elevated lead soluble threshold limit concentration (STLC) results in soil samples collected from the combined excavation EXC1 and EXC2 (located near 66th Avenue), this soil was characterized as non-Resource Conservation and Recovery Act (RCRA) solid hazardous waste and transported for disposal at Waste Management's Kettleman Hills Landfill. The table below identifies soil disposal classifications, quantities, and destinations for PCB-affected soil. Copies of the PCB-affected soil waste manifests are included in Attachment 4, in addition to weight summary reports for non-PCB-affected soils from the landfills. Note, copies for three manifests for PCB-affected soil are outstanding, and have been requested by ARCADIS from Kettleman Hills Landfill. These include the following manifest numbers: 005417521JJK, 005417522JJK, and 005417534JJK. The soil included in these shipments is accounted for in the table below, and the PCB-affected soil summary table included in Attachment 4.

**Soil Disposal Summary**

| Destination | Waste Classification | Volumes (tons) |
|---|---|---|
| Kettleman Hills Landfill | Non-RCRA (PCB- TSCA) | 1,280.85 |
| Kettleman Hills Landfill | Non-RCRA (Lead) | 1,977.83 |
| Vasco Road Landfill | Non-Hazardous | 5,102.04 |
| Keller Canyon Landfill | Construction Debris (includes building demolition debris) | 2,476.60 |

In addition to the soil removal, PCB-affected building materials were also removed from the Site. As requested by the U.S. EPA, samples of the building materials that comprised the two warehouses that were demolished were collected in October 2009. These samples were collected and analyzed in accordance with the Sampling Plan for Building Materials provided in the letter from LFR to the U.S. EPA, dated October 19, 2009 (LFR 2009b).

Samples from building materials that included window caulk, paint, roofing materials, and concrete were collected and submitted to a state-certified laboratory for PCB analysis using U.S. EPA Test Method 8082. The laboratory reports for these samples are included on the CD that accompanies this report (Attachment 1). PCBs were present in concentrations above the laboratory reporting limits in the samples

collected from window caulk, paint, and concrete at the Site. The demolition debris from the demolition of both structures, including but not limited to wood, metal, glass, and concrete, was consolidated on-site and transported for disposal as bulk PCB remediation waste at Republic Services' Keller Canyon Landfill located in Pittsburg, California. Based on the weight tickets provided by Republic Services, a total of 2,476.60 tons comprised of bulk PCB product waste (comprised of window calking and other building materials) and PCB remediation waste (concrete affected by PCBs) was disposed of at the Keller Canyon Landfill. The majority of this material was concrete. The weight summary report for these materials is provided in Attachment 4.

We at ARCADIS appreciate working with you and your team and look forward to bringing this project to closure with the U.S. EPA and Alameda County Department of Environmental Health in the very near future.

Sincerely,

ARCADIS U.S., Inc.

Ron Goloubow, P.G.
Principal Geologist

Copies:
Kahlmus D. Eatman - Pacific Charter Schools
Mala Batra - Aspire Public Schools
Paresh Khatri - Alameda County Department of Environmental Health

**Enclosures:**
Figure 1 - Site Vicinity Map
Figure 2 - Site Plan
Figure 3 - Site Plan Showing Pavement Plan/Cap and In-Place Soil Exceeding PCB Cleanup Goals
Figure 4 - In-Place Soil Samples Compared to PCB Cleanup Goals
Figure 5A - Excavations PCB-1 and PCB-2 Soil Samples Compared To PCB Cleanup Goals
Figure 5B - Excavations EXC-1 and EXC-2 PCB Concentrations
Figure 5C - Excavations EXC-4, PCB-3, and PCB-4 PCB Concentrations
Attachment 1 - Laboratory Analytical Data for Soil Samples (provided on CD)
Attachment 2 - Revised Human Health Risk Evaluation

Attachment 3 - Laboratory Analytical Data Report for Imported Soils
Attachment 4 - Waste Disposal Information

**References**

ARCADIS. 2010a. Implementation of the Toxic Substances Control Act Self-Implementing Cleanup Notification at the Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California. August 12.

ARCADIS. 2010b. Additional Excavation Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California. September.

ARCADIS. 2011a. Soil Sampling Plan for Soil to be Imported for Use in the Proposed Landscaped Areas at the Former Pacific Electric Motors Facility, 1009 66th Avenue, in Oakland, California. June.

ARCADIS. 2011b. Implementation of the Toxic Substances Control Act Self-Implementing Cleanup Notification at the Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California. August 12.

LFR Inc. (LFR). 2009a. Revised Corrective Action Plan, Proposed Aspire School Site, 1009 66th Avenue, Oakland, California (Fuel Leak Case No. RO0000411). July 17.

LFR. 2009b. 1009 66th Avenue, Oakland, California Soil and Concrete Sample Location Rational. October 19.

LFR. 2009c. Toxic Substance Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California. October 23.

U.S. Environmental Protection Agency (U.S. EPA). 2011. Aspire Public School, 1009 66th Avenue, Oakland, California – USEPA November 13, 2009 Approval of Polychlorinated Biphenyls Cleanup Notification under Toxic Substances Control Act – New Request for Additional Cap Modification. June 16.

Attachment 1

Laboratory Analytical Data for Soil Samples

*(provided on CD)*

Attachment 2

Revised Human Health Risk Evaluation

Attachment 3

Laboratory Analytical Data
Report for Imported Soils

Attachment 4

Waste Disposal Information

Kettleman Hills Landfill Summary
(Non-RCRA and TSCA Soil) and
TSCA Manifests

Keller Canyon Landfill Summary
(Construction Debris)

Vasco Road Landfill Summary
(Non-Hazardous Soil)